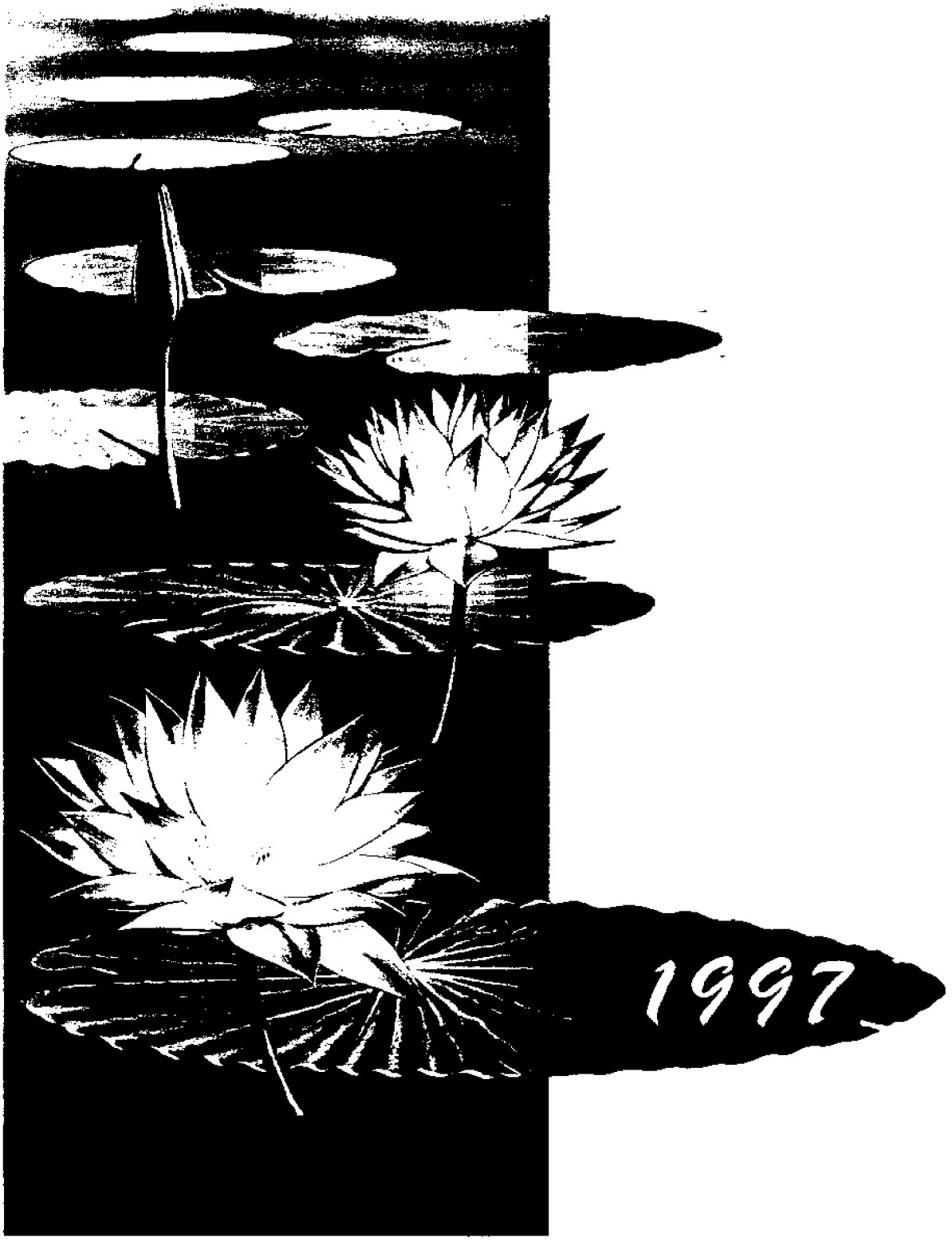
Australian Bureau of Statistics

WESTERN AUSTRALIAN YEAR BOOK



1997

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Users are warned that this historic issue of this publication series may contain language or views which, reflecting the authors' attitudes or that of the period in which the item was written, may be considered to be inappropriate or offensive today.

Cover: The front cover features the large Waterlily Nymphaea gigantea. This plant is commonly found growing in billabongs, permanent pools, rivers and gorges in the Kimberley region of Western Australia.

Illustrated on the back cover are the flowers, fruit and leaves of the Boab Tree Adansonia gregorii. The tree itself with its knarled swollen appearance is a familiar sight in the Kimberley. It occurs naturally from the Derby area eastwards to the Victoria River in the Northern Territory.

Designer: Martin Thompson is a wildlife artist specialising in the flora and fauna of Australia and South East Asia.

Western Australian Year Book 1997

WESTERN AUSTRALIAN YEAR BOOK

No 33 – 1997

P.C. KELLY

Government Statistician and

Regional Director for Western Australia

Australian Bureau of Statistics
Western Australian Office

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PREFACE

The 1997 Western Australian Year Book is a general reference work produced by the Australian Bureau of Statistics (ABS) presenting current data on the social, economic and demographic make up of the State.

The information in the 1997 Western Australian Year Book is compiled from the wide range of data which is collected by the ABS and made available to the community. The data is disseminated in printed publications, in electronic format and on microfiche, magnetic tape, floppy disk or CD-ROM (such as the Integrated Regional Database and the Australian Year Book).

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ABS publications draw extensively on information provided freely by individuals, businesses, governments and other organisations. Their continued cooperation is very much appreciated; without it, the wide range of statistics published by the ABS would not be available. Information received by the ABS is treated in confidence as required by the *Census and Statistics Act 1905*.

P. C. KELLY

Government Statistician and
Regional Director for Western Australia

May 1997

Photography Competition

During the early part of 1994 the ABS organised a photography competition for Western Australian Secondary School students. Photographs submitted as a result of this competition were included in the 1995 Western Australian Year Book. The competition was held each year since. The assistance of the judges, participating schools, and the interest shown by the students is gratefully acknowledged.

The winner of the first prize of $150 was Hung Nguyen of Balcatta Senior High School for his photograph of the West Side of Sorrento Quay.



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GENERAL INFORMATION

Symbols

The following symbols mean:

ABS	Australian Bureau of Statistics
n.a.	not available
n.e.c.	not elsewhere classified
n.e.i.	not elsewhere included
n.e.s.	not elsewhere specified
n.p.	not available for separate publication but included in totals where applicable
n.y.a.	not yet available
p	preliminary figure or series subject to revision
	figures or series revised since previous issue
–	nil or rounded to zero
..	not applicable
—	break in continuity of series (where drawn between two consecutive figures or columns)
*	subject to sampling variability too high for most practical uses

Other forms of usage

Rounding. Where figures have been rounded, discrepancies may occur between sums of the component items and totals.

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Feedback from readers
The ABS endeavours to keep the balance of the contents of the Western Australian Year Book in line with the ever changing social, economic and demographic conditions in the State. Comments on the relevance, adequacy and balance of the contents of the Western Australian Year Book are welcomed and should be directed to The Editor, Western Australian Year Book, ABS Perth Office.

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History

Chapter 1

HISTORY

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Chapter 1

HISTORY

Early History of the Perth Metropolitan Area, 1829–1920

Contributed by John M. Clark, B.A. (Hons) Former Vice-president and Councillor of the Royal Western Australian Historical Society

In 1995, 1.26 million people, representing nearly 73% of the total population of Western Australia, lived in the Perth Metropolitan Area. The area covers about 5457 square kilometres, extending from Wanneroo in the north to Rockingham in the south and taking in all the lands between the Darling Ranges and the Indian Ocean. Although some small-scale agriculture and viticulture are undertaken, and extensive areas have been set aside as nature reserves and parklands, the Metropolitan Area is predominantly residential and industrial in character.

There are now as many as fifteen cities in the area, nine centres recognised as towns for local government purposes and five shires. About 76% of the population of the area live in cities, 11% in towns and the balance (13%) in the few remaining shires.

First Towns

Soon after the landing of the first settlers at the Swan River Colony, plans were drawn up and townsites laid out for the first three urban centres, namely Perth, Fremantle and Guildford. For many years these towns continued to meet the needs of the Swan River area — Perth as the seat of administration, Fremantle as the shipping port and Guildford as the focal point of the earliest agricultural area and, later, as the marketing centre for produce from the Avon Valley.

From the earliest days of the settlement it was apparent that the area now covered by the metropolitan area had very limited agricultural potential. The poor soil and water resources of the coastal plain were insuperable impediments. They restricted cultivation to a few favoured areas along the river banks of the Upper Swan, on the Canning and pockets of land adjoining other sources of water supply, notably the Great Lakes to the north and west of Perth, some of which were later drained. Although the Canning showed early promise, most of the first wave of settlers had left the area by the mid 1830s, overcome by the isolation and frustrated by marketing problems.

Suburban Grants

In view of this situation, the extensive patchwork of land grants in the environs of Perth and Fremantle shown on contemporary maps can be very misleading. Most of this land was never farmed. A number of the owners, like J. H. Monger at Leederville, had better lands in the Avon Valley, while others, such as Charles Leeder, found more profitable outlets for their energies in other enterprises.

John Butler owned the whole of Peppermint Grove (which he called Prospect Place) as well as land at Butler's Swamp (Lake Claremont) and South Perth, but he is better remembered for his tavern, the 'Half-Way House' (later Albion Hotel) on the Perth - Fremantle Road.

Across the river, Lionel Lukin owned all of Applecross, and Archibald Butler much of present-day Attadale. Another acquisitive land-hoarder was Alfred Waylen. By 1842, this gentleman owned or leased all of the land between Point Walter (where he had a 'villa grant') and Point Heathcote. However, he made his money trading at Fremantle while practically all of his Melville acres continued to be described as natural bush land.

Early Communications

For many years communication between Perth, Fremantle and Guildford was mainly by river boat. Land travellers between Perth and Fremantle on both sides of the river had to follow meandering sandy tracks 'infested with stumps and branches of trees to the greater danger of horses and riders' with few signs of habitation along the way. In the absence of bridges, horse ferries had to be used at either Preston Point or the Narrows. An alternative for travellers on the south side was to cross at the river flats at Heirisson Island, where the first causeway was opened in 1843. Six years later a wooden toll bridge was built near the mouth of the Canning and from then on the southern 'all land' route was the more popular of the two.

Further important improvements were made to the linkages between the three towns when convict labour became available during the 1850s and 1860s. These included the construction of a more reliable causeway, a new bridge across the Helena River at Guildford and the first traffic bridge at Fremantle.

Following the opening of the Fremantle bridge in 1867, a more direct land route could be followed to Perth through Leighton and thence to Cottesloe. Convict work parties also surfaced the road to Perth using sandstone from quarries at Buckland Hill, Point Resolution and Mount Eliza. By 1862, it was at last useable by horse-drawn buggies and drays and the road had been up-graded sufficiently for its gazettal as a public highway.

In the same period, work was undertaken on the Perth - Albany road which traversed a section of the future metropolitan area from the Causeway to Kelmscott, the first staging point for coaches on the Albany run. The Canning sandplain section of this road was to give continuing trouble, even when paved with wooden blocks.

Beginnings of Local Government

The growth of the town centres, as of the Colony generally, was extremely slow. In 1853, the total population still stood at a mere 9,334, and it fell short of the 25,000 mark until 1870. Of the total population in 1853, 1,151 were convict ticket-of-leave holders and 561 military personnel. Only 1,940 persons were living in Perth, 1,859 in Fremantle and 720 in Guildford, while 99 were recorded on the Canning where no town centre had developed.

Despite these small numbers, steps had been taken as far back as 1838 to introduce a system of local government in the Colony. Town Trusts were established in Perth (1838), Fremantle (1838) and Guildford (1840) with responsibilities for the construction and maintenance of infrastructure and the framing and enforcement of regulations covering buildings, fences, stray animals and other local matters.

The most important pieces of local government legislation in the nineteenth century were the *Municipal Institutions* and *Districts Roads Acts* of 1871. These provided, firstly, for the establishment of municipalities in the more densely populated localities of the Colony and, secondly, for the setting up of elected road boards in other areas. Both municipalities and road boards were empowered to levy rates for local government purposes, but in practice most of the early road boards remained reliant on government grants for their works programs.

The municipal form was the 'higher' of the two, in so far as it applied to built-up areas where rates could be levied on the improved values of properties and a better standard of local services provided.

Early Municipalities and Road Boards

The continued slow development of townships in the metropolitan area after 1838 is reflected in the fact that only Fremantle and Guildford immediately achieved municipal status in 1871. Perth had been elevated to a city in 1856 when it became the seat of an Anglican archbishop — as was the practice of the day. Similarly, local government responsibilities in the whole of the remainder of the metropolitan area (and even beyond its present borders) was divided between only four road boards — Perth, Fremantle, Swan and Canning.

The areas coming under the jurisdiction of these boards were huge by later standards. The Perth Road District included all of the areas surrounding the city, such as present-day Maylands, Mount Lawley and Osborne Park, as well as the whole of Wanneroo and the lands down the Swan River to the border of Fremantle.

Likewise, the Fremantle Road District extended along the south side of the Swan to the Canning River, besides embracing all of the coastal region as far south as Rockingham.

The Swan Road district went from the Guildford municipality northwards into the Gingin-Chittering area. Even the Canning Road

District took in places as far apart as the future localities of Jarrahdale, Cannington and Queens Park. Three of the four districts penetrated the Darling Ranges.

Clearly, the jurisdictions of these boards were largely nominal. Their precarious financial situation precluded any ambitious new public works and the intention appears to have been mainly to divide between them the responsibility for upkeep of the existing infrastructure.

Thus the Perth Road Board's principal task became the maintenance of the Perth-Fremantle road and the Causeway. It also shared with the Swan Board the responsibility for the road from Perth to Guildford. Similarly, the Fremantle and Canning Boards divided the maintenance of the main thoroughfare (later Canning Highway) along the south side of the Swan.

Railways Arrive

In the decade following the introduction of the district roads and municipal institutions legislation, the metropolitan area continued to slumber. The principal catalysts for change were the coming of the railways in the 1880s and the dramatic growth of population during the gold rushes.

The first railway in the metropolitan area, and the one which influenced the distribution of the population most decisively, was the Fremantle to Guildford line. The first sod was turned by Governor Ord on 3 June 1879, as part of the celebrations for the 50th anniversary of the foundation of the Colony, and the line was handed over on 14 February 1881. The work entailed construction of further bridges at Fremantle and Guildford.

Initially, the railway was a very low-key affair, undertaken by an engineer named John Robb, formerly of Adelaide. Until 1898 when the influence of the gold rushes was being felt, only a single track was laid. There were few stations even of the most rudimentary kind, although engine drivers evidently cheerfully responded to the waving flags and flashing lamps of intending passengers. The eventual duplication of the line was accompanied by a program of station construction. By 1920, there were sixteen stations along the route besides the terminals and the Central Railway Station.

Other railways gradually spread into the outer parts of the metropolitan area, enhancing the amenity of living there and providing the first opportunities for commuter travel. The Fremantle - Guildford line was conceived as the first stage of an Eastern Railway extending through to the Avon Valley. A second stage, as far as Chidlow's Well opened in 1884 bringing the surrounding areas within easy reach of Guildford. The famous Zig Zag Railway was constructed in 1890–91 to link E.V. Keane's Canning Mills with the main line at Midland Junction. This railway, which carried passengers as well as timber, was taken over by the Government in 1903 and the service continued until as late as 1949.

The South-Western Railway was open as far as Armadale in 1893, passing through all of the important Canning centres such as Queens Park, Kensington, Maddington, Gosnells and Kelmscott.

To complete the network, a line from Fremantle to Robb's Jetty was extended through to Jandakot and thence to Armadale in 1908. Armadale's rail connections with both Perth and Fremantle consolidated its importance in that district and the local authority was re-designated the Armadale-Kelmscott Road Board in 1910.

Early Suburbs

When the railway was opened between Fremantle and Perth in 1891 there were still no established communities along its route. Claremont achieved early prominence in the single track period as the only passing point for trains and the only stopping place with a proper railway station. In 1893 its name was changed from Butler's Swamp and the small settlement began to expand its facilities and attract residents of substance, especially to the foreshore of Freshwater Bay.

The railway also gave wider public access to recreational spots which later developed into towns, including Cottesloe Beach (now Mosman Park), esteemed for its safe sea-bathing, Bullen's Siding (Cottesloe) for the attractions of the pristine river at Peppermint Grove, and Claremont, again for the natural beauties of Butler's Swamp (Lake Claremont).

The first large scale residential development along the new line was that of Subiaco and Shenton Park. In this instance, the whole of an area of Crown Land between the railway and Thomas Street was subdivided and sold at a series of auctions. Sales were oriented mainly towards middle income workers who gave the area its permanent social character. The first auction was of land immediately adjoining the railway station, which had acquired its name as a stopping place for visitors to the former Benedictine Monastery of New Subiaco near Lake Monger

This government initiative was soon followed by subdivisions of early land grants by private developers. In 1891, John Maddock, a Melbourne lawyer, began selling land to the west of the railway which was advertised as the 'Jolimont Estate' and later composed most of the residential section of the suburb of that name.

In 1885, Alexander Forrest, the explorer turned property developer, subdivided Swan Location 717 known as the 'Heights of Claremont'. Forrest also participated in a syndicate which in 1887 purchased the whole of Peppermint Grove from the estate of John Butler's widow. This immediately attracted well-to-do citizens of Perth. John Forrest purchased five acres in the new subdivision, while Edward Keane, the railway contractor, bought eight and a half acres, including the promontory known as Butler's Hump (later Keane's Point and the site of the Royal Freshwater Bay Yacht Club).

This type of development extended to other parts of the metropolitan area during the gold-rush period and well into the twentieth century. Along the Canning, one large property of over 7,000 acres, sold in 1902 by the heirs of Charles Gosnells to the Gosnells Estate Company, was to become the focal point of the Town (later City) of Gosnells and its surrounds. Sub-divisions of the old 'Kenwick Park' property followed between 1907 and 1913, along with 'Maddington Park' and 'Stoke Farm', once the showcases of farming in the Canning area.

At West Guildford (Bassendean), the extensive property of Peter Broun, Western Australia's first Colonial Secretary, was cut into quarter acre blocks and offered to office workers and others seeking an alternative lifestyle. Nearly all of the original estates in the Swan Valley, including such historic properties as 'Pyrton', 'Caversham', 'Sandalford', 'Priory Park' and 'St. Leonards', came onto the market. In this instance, some of the original character of the district was preserved through the sub-division of the properties into farmlets intended primarily for grape growing. 'Henley Park', upon sub-division in 1914, was advertised as having been under cultivation for sixty years.

New Municipalities

The growing importance of recently established communities during the 1880s and 1890s was reflected in a spread of new local authorities. Between 1895 and 1898 as many as seven additional localities qualified for municipal status, with a further four in the first decade of the new century (Table 1.1).

1.1 – ESTABLISHMENT OF MUNICIPALITIES, 1871–1907

Municipality	*Date of Gazettal*
Fremantle	21 February 1871
Guildford	21 February 1871
North Fremantle	13 September 1895
Helena Vale	8 November 1895
Leederville	3 April 1896
Subiaco	10 April 1896
East Fremantle	2 April 1897
Victoria Park	30 April 1897
Claremont	17 June 1898
North Perth	25 October 1901
South Perth	21 February 1902
Queens Park	25 January 1907
Cottesloe	20 September 1907

The newcomers included South Perth and North Fremantle, which had previously been considered integral parts of their parent towns, as well as East Fremantle, formerly administered by the Fremantle Road Board. It is notable that all of the other new municipalities had easy access to railway lines. Helena Vale (later Midland Junction) was pre-eminently a railway town; it had risen to prominence as the operations centre for the privately-owned Midland Railway. The

longer-term prospects of this community were assured when in 1895 (the year it gained municipal status) the decision was announced to move the extensive government railway workshops with their large workforce from Fremantle to Midland.

Road Board Fragmentation

Concurrently with the establishment of these new municipalities, the four huge road board districts set up in 1871 were being splintered into smaller units as a number of other communities increased their populations and sought to control their affairs. Typically, the fragmentation process involved a series of large excisions from the original districts in the first instance, followed by smaller sub-divisions later, until the shape of the units was something like we have today.

The history of the Perth Road District illustrates this process. In 1893, that is two years after the opening of the Fremantle-Guildford railway, the whole of the area from Perth to Fremantle was separated from the district and designated the Claremont Road District. In 1902, another major excision was made when Wanneroo gained its separate identity.

While the boundaries of Wanneroo district have remained much the same to this day, the new Claremont district lost in quick succession the Buckland Hill (Mosman Park), Peppermint Grove and Cottesloe localities. The establishment of the Municipality of Claremont in 1898 (embracing 1164 acres of the choicest lands) took away the heartland of the district and moved its orientation closer to Subiaco and Perth. It was then only a matter of time before the residual area was renamed the Nedlands Road District. However, the shape of this district, and its inclusion of Mount Claremont, continues to bewilder the newcomer.

Another important sub-division was that of the Darling Range District. In the first instance this district had been separated from the Swan District in recognition of the fact that the special needs of the hills areas to the east were not being met by the Swan Road Board. Although the initiative for this action had come from the orchardists of Gooseberry Hill, the new district approved by the government embraced large areas on both sides of the Helena River. The river was soon recognised as a barrier to communication within the district and to a fostering of community identity. Following further representations, the northern area was then separated and given the name of Greenmount Road District (later Mundaring). The southern sector (centred on Kalamunda after the foundation of that township) continued as the Darling Range Road District until 1961.

Other major excisions from the original road districts are shown in Table 1.2. By 1915, eighteen road districts had evolved from the original four. They ranged in area from a tiny one square mile in the case of Cottesloe Beach (Mosman Park) and Peppermint Grove to 240 square miles in the hills district of Greenmount. All of the

original road districts had survived this process, albeit in a highly truncated form. However, over the long haul, the road board form of local government became increasingly inappropriate in the metropolitan environment.

1.2 – ROAD BOARD FORMATION, 1893–1907

Original Road District (1871)	*New Road District*	*Date of Gazettal*
Perth	Claremont	30 March 1893
	Wanneroo	31 October 1902
Fremantle	Jandakot	1 January 1891
	Rockingham	5 February 1897
	Melville	14 June 1901
Canning	Kelmscott	14 December 1894
	Serpentine	27 November 1896
	Gosnells	26 April 1907
Swan	Gingin	12 January 1893
	Chittering Brook	10 January 1896
	Darling Range	30 April 1897

The Expansion of Perth

In the early years of this century, the area under the jurisdiction of the City of Perth was relatively small — some 2,300 acres. The city was bounded on the north by Vincent Street and on the west by Thomas Street. Around its borders lay North Perth, South Perth and Victoria Park, each with their separate administrations, as well as Maylands and Mount Lawley within the Perth Road District.

In the space of a few years the city was to assume a much higher profile in the metropolitan area by a process which involved acquisition of 'commonage' lands, amalgamation with adjoining road board districts and the purchase of a large estate at Perry Lakes, owned originally by Walter Padbury, a prominent Perth butcher.

As far back as 1855, Perth had begun to gain a measure of control over coastal lands to the west of its borders. In that year, the government vested in the Perth Town Trust the right of all timber and stone on the whole of the area from the north of Herdsman's Lake to North Fremantle and from the Swan River to the ocean. The Trust was empowered to grant licences for the cutting of timber or firewood or for quarrying stone, and to appropriate the proceeds for the improvement of the town.

In 1883, the boundaries of Perth Commonage, as it was called, were redefined and a specific area of 4,000 acres allocated 'for the endowment of the City of Perth'. Under the vesting order the City Council was only permitted to grant leases of the land for a maximum of ten years, which clearly imposed major obstacles to the development of the land.

After repeated representations by the City Council, the fee simple of 2,600 acres of land in the vicinity of City Beach was granted in 1902. At the same time, other sections of the Commonage were assigned to the Subiaco and Leederville Councils, as well as to the Endowment Trustees of the University of Western Australia. It took a further eighteen years, and a number of changes of government, before legislation was enacted conferring upon the Perth Council full powers of an owner in respect of its portion of the Endowment Lands.

The Greater Perth Movement

Meanwhile, the Council had embarked on an energetic campaign which became known as The Greater Perth Movement. With the strong support of Mr R. P. Vincent, who assumed the Mayoralty of Perth in 1909, a plan was drawn up for the amalgamation of the City with all the surrounding local authorities under a mega-council of 25 members. This Council was to be given wide powers over water supplies, sewerage, lighting, tramways, ferries and a range of other community services. Radical new financial arrangements were envisaged.

This ambitious proposal soon lost the support of some of the more influential local authorities, besides encountering government hesitancy over the new legislation which would have been required. In these circumstances, the Councils of Perth, North Perth and Leederville ultimately agreed to amalgamate on a more low-key basis as provided in the *Municipal Corporations Act, 1906*. The union took effect in December 1914 and the three founders were joined by Victoria Park in 1917.

Garden Suburbs

Following the merger with Leederville, the City boundary extended to the west as far as Selby Street. However, the capital was still separated from its Endowment Lands at City Beach by a large expanse of land, named the Limekilns Estate, then in the hands of old Joseph Perry, a former council employee. This land, now known as Perry Lakes, was purchased from Perry in 1917.

The Council then constructed a plank road as an extension of Cambridge Street to the beach and commissioned architects to draw up plans for Floreat Park and City Beach, the first of Perth's garden suburbs. Large areas were set aside as parklands, including Bold Park, named after the enterprising Town Clerk of the City of Perth whose energy and foresight had motivated the Greater Perth Movement.

Later Devopments

Although this brief history concludes in 1920, it should be understood that the principal characteristics of today's metropolitan area were established by that time. Few changes have occurred subsequently in the numbers and delineations of the more important local authorities, although the nomenclature has altered. Under comprehensive local government legislation, enacted in 1961, the former road boards were designated 'shires' and municipalities 'towns'.

Tramways for the People

Contributed by John M. Clark, BA (Hons)

Tramways played an important role in the peopling of the suburbs, especially in the first two decades of the century. Like the railways, they quickly won enthusiastic public acceptance and opened new opportunities for cheap and convenient commuter transportation and for freer access to recreational places such as Kings Park and the various swimming baths constructed around the river at that time.

The first tramway concession was granted by the Perth City Council to the Perth Tramway Company (PTC), an enterprise set up by a group of London investors, in 1897. By 1900, the earliest tramcars were running along Hay Street from their car-barn at East Perth to the City's boundary with Subiaco, as well as along Beaufort Street to Highgate.

During the next decade or so, a network of lines was developed, bringing Subiaco, North Perth, Leederville, Mount Lawley, Maylands, Osborne Park and Nedlands into the system. Even Victoria Park obtained a coveted tramway in 1905 after problems associated with crossing the Causeway had been resolved, but many years elapsed before South Perth and Como were to benefit.

At Fremantle, lines constructed between 1905 and 1915 ran from the town centre to North and South Fremantle, Palmyra, Beaconsfield, Bicton and as far afield as Point Walter. This system was never linked with that of Perth. Indeed, even within the Fremantle district, the North Fremantle Municipality and the Melville Road District were staunchly independent of the Fremantle Municipal Tramways and Electric Lighting Board (FMT) — a joint enterprise of the Fremantle and East Fremantle Councils.

Although the PTC remained the principal operator in the environs of Perth until 1913, other parties, notably local government authorities and property developers, became involved as the tramlines extended beyond the City boundaries. The line through Subiaco was constructed and operated by the PTC on behalf of the Subiaco Town Council.

Promoters of the Mount Lawley Estate and the Maylands sub-division assisted the Tramway Company financially. Town Properties of Western Australia Ltd., the original developers of Osborne Park, directly operated an extension of the Perth service (with a penny fare) as an inducement to purchasers of land in their sub-division.

In 1909, the Subiaco line was extended through present-day Hollywood to the Nedlands riverfront to provide access to the Nedlands Park Estate, as well as to the hotel and recreational facilities being constructed by the developer. As part of the deal, Subiaco received an extensive 'corridor' of land to the east of the tramline embracing part of Hollywood, University lands and a valuable residential area. The Subiaco line, and another which reached Nedlands via Crawley Baths in 1915, closed long ago, but the corridor remains as a continuing reminder of the tramway era.



Tramcar at Osborne Park terminus
Courtesy: Battye Library 2668B

The period when the PTC reigned supreme ended with the take-over of the whole system by the State Government in 1913. Responsibility for day-to-day operations then passed to the Western Australian Government Railways. Subsequently, several important new lines were constructed, notably those to South Perth/Como and Claremont/Dalkeith. But, for the most part, the department concentrated on re-laying the old tracks and generally improving the run-down system it had inherited.

The Fremantle network remained unaffected by the takeover. It continued as before until 1928, when the Melville routes were absorbed by the FMT. The North Fremantle operation closed in 1938 and that of the FMT, which had been sustained by its electricity-generating revenues, in 1952. The last time the citizens of Perth saw a tram in service was on 19 July 1958 on the Inglewood line. It was a sad occasion and the people came out in large numbers to see the tram pass.

New qualifications for city status were introduced which recognised, inter alia, the broader range of services, including cultural ones, that the highest echelon of local government is now expected to provide.

While the boundaries of local government areas have shown few major changes since the period under review, the growth of population has been reflected in the graduation of earlier road districts to cities. Between 1959 and 1988 as many as twelve new cities were established all of which were in existence as road boards in 1920. The old Perth Road Board survives as the City of Stirling, the Fremantle Road Board as the City of Cockburn and the Canning Road Board as the Cities of Canning and Gosnells. Only the Swan Road Board continues as a shire, although it, too, has grown in importance through the absorption of the towns of Guildford and Midland Junction.

It is notable that cities such as Wanneroo and Rockingham have been able to sustain high post-World War II population growth without the widespread splintering tendencies of the earlier period. The one major change to the boundaries of Rockingham, which celebrates its centenary in 1997, came about through the severance of the Shire of Kwinana in the context of the agreement for the establishment of the oil refinery. Kwinana is now a town and the only surviving shires, apart from Swan, are Kalamunda, Mundaring, Serpentine-Jarrahdale and Peppermint Grove.

Most recently, the area administered by the Perth City Council, which expanded so dramatically in the first two decades of the century, has experienced an equally significant contraction under legislation enacted by the State Parliament in 1993. The three new towns of Cambridge, Shepperton (Shepperton subsequently reverted to its former name of Victoria Park) and Vincent were created, thereby separating the City from its former Endowment Lands as well as from Victoria Park, Leederville, Wembley, Floreat and City Beach. Currently, the area covered by the City is little larger than it was at the turn of the century.

Further Reading

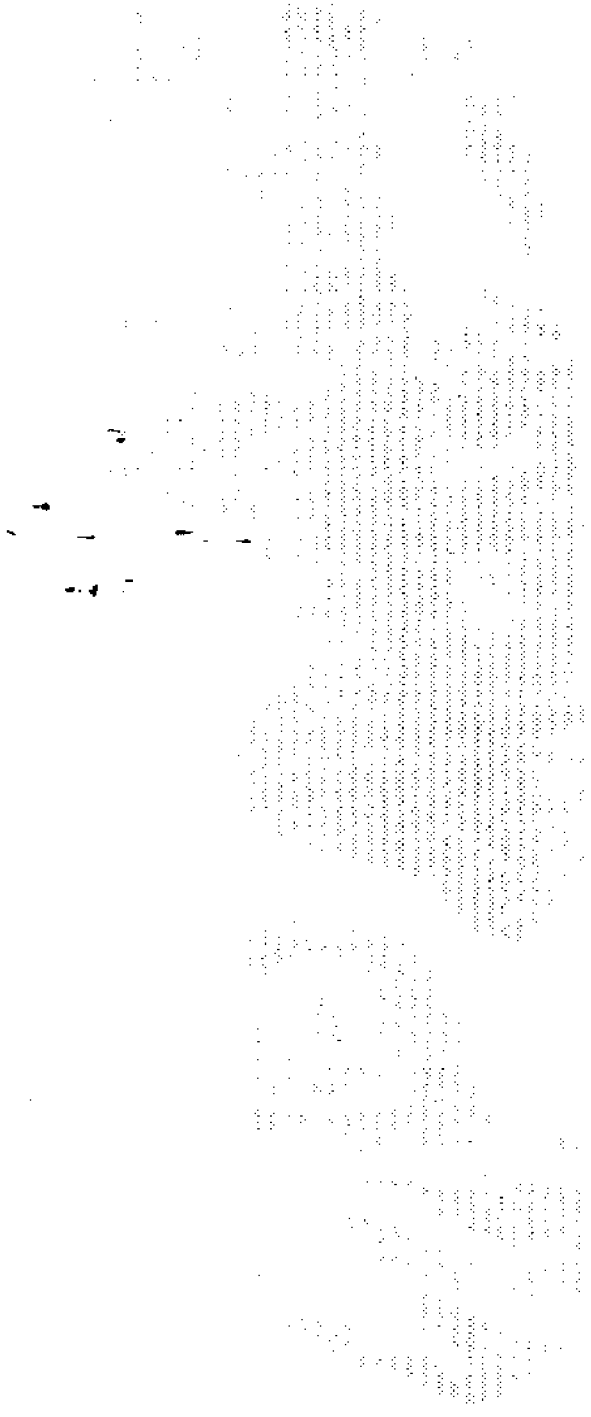
Most local government authorities have commissioned histories of their districts. Three studies which provide good introductions to the subject are:

Michael J. Bourke, *On the Swan: A History of the Swan District, Western Australia*, Swan Shire Council and UWA Press, 1987

G. McDonald and W.S. Cooper, *The Gosnells Story*, City of Gosnells, 1988.

Ken Spillman, *Identity Prized: A History of Subiaco,* City of Subiaco and UWA Press, 1985.

Environment



Chapter 2

ENVIRONMENT

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Chapter 2

ENVIRONMENT

Physical Features

Western Australia is the largest Australian State. The narrow Timor Sea separates Western Australia's northern coastline from the equatorial islands of the Indonesian archipelago; to the south is the Southern Ocean and Antarctica.

Within this vast area, climates range from the monsoonal tropics of the north, through arid northern coastal and inland areas, to temperate zones in the south. The Western Australian landscape varies from the rugged beauty of the far north, the breathtaking Hamersley Ranges, stunning red deserts and areas of productive agricultural land to magnificent karri eucalypt forests. Along the coastline are innumerable beaches, coral reefs of great beauty and waters rich in marine life. The most attractive and important features of the land and coastline are protected in national and marine parks.

PHYSICAL FEATURES

Area:
2,525,500 sq km

Length of Coast line:
app. 12,500 km

Highest Point:
Mt Meharry
1 251 metres

Most Northerly Point:
Cape Londonderry
Latitude 13° 44' 43"
Longitude 117° 38' 0"

Most Southerly Point
Torbay Head
Latitude 35° 8' 10"
Longitude 117° 38' 0"

Highest Town:
Tom Price
740 metres

Land Distances:
North-South 2,391 km
East-West 1,621 km

Longest River:
Gascoyne River
865 km

Largest Desert:
Great Sandy Desert
258,000 sq km

Largest Island:
Dirk Hartog Island
61,338 ha

Largest Lake:
Lake MacKay 3,550 sq km
(only 2750 sq km is in WA)

Highest Waterfall:
King George Falls
app. 80 metres

Source: Department of Land Administration

Climate

Contributed by the Western Australian Regional Office of the Bureau of Meteorology (BOM).

Western Australia is a region of several different climate zones, ranging from the tropical weather of the north to the semi-arid interior and Mediterranean style climate of the Southwest. Most of the State is a plateau between 300 and 600 metres above sea level.

The weather is controlled largely by the movement of a belt of high pressure systems. This belt of highs separates the south east trade winds to the north from the westerlies to the south. The highs are displaced northward in winter allowing the moist westerly winds to extend over southern areas.

Cold fronts and associated low pressure systems embedded in the westerlies produce most of the annual rainfall for southern districts, including agricultural regions, during the cooler months.

2.1 – MAXIMUM TEMPERATURES FOR SELECTED WEATHER STATIONS, 1995 VERSUS LONG TERM AVERAGES (Celsius)

Station	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
Kununurra	36.0	34.3	34.3	34.2	31.9	30.0	31.5	31.9	37.5	37.5	39.0	36.6
Average	36.4	35.5	35.3	35.5	32.9	30.5	30.2	33.6	36.4	38.3	38.8	38.1
Broome	33.8	32.0	35.6	34.5	31.6	28.6	29.6	31.6	30.2	32.0	34.5	32.5
Average	33.4	33.0	34.0	34.2	31.4	29.1	28.7	30.2	31.9	32.9	33.6	34.0
Port Hedland	36.3	33.7	37.0	35.0	29.9	26.3	27.4	31.1	32.2	33.8	36.7	34.5
Average	36.3	36.2	36.7	35.0	30.3	27.4	26.8	28.8	32.2	34.5	36.2	36.6
Learmonth	37.8	33.8	35.2	31.8	26.9	23.9	23.9	27.6	28.6	33.0	33.8	33.8
Average	37.9	37.7	36.4	33.2	28.4	24.7	24.0	26.0	29.3	32.1	34.2	36.8
Carnarvon	30.8	34.0	33.4	29.3	25.3	22.2	22.1	24.1	24.2	27.0	28.3	30.1
Average	31.2	32.5	31.4	28.8	25.9	23.2	22.0	22.7	24.4	25.7	27.3	29.0
Newman	40.1	33.5	32.5	29.0	24.4	21.3	21.7	25.9	30.8	33.6	36.3	36.7
Average	38.4	37.1	35.9	31.7	26.1	22.4	22.2	24.7	29.3	33.5	36.6	38.5
Meekatharra	39.2	32.3	30.1	25.4	21.7	19.4	19.1	23.6	27.1	30.3	32.2	35.7
Average	38.0	36.6	34.6	29.2	23.4	19.4	18.6	21.0	25.4	29.2	33.1	36.3
Geraldton	31.0	34.1	33.5	27.7	22.8	19.5	19.5	20.8	22.4	25.7	26.6	29.5
Average	31.7	32.5	30.9	27.4	23.7	20.7	19.4	20.0	22.0	24.3	27.0	29.3
Perth Airport	32.7	32.7	31.6	25.8	21.1	17.8	17.8	19.1	20.4	23.2	24.6	28.1
Average	31.4	31.7	29.5	25.2	21.4	18.7	17.6	18.3	20.0	22.3	25.4	28.5
Albany Airport	24.2	25.2	24.0	21.1	18.3	15.8	15.7	17.1	17.0	19.5	20.2	21.0
Average	25.2	25.1	24.3	21.6	18.7	16.6	15.7	15.9	17.4	18.8	20.8	23.5
Merredin	34.6	32.4	29.4	23.7	19.0	15.4	16.0	18.1	20.6	25.7	28.1	29.2
Average	33.4	32.8	29.9	25.0	20.1	17.0	16.0	16.9	20.3	24.4	27.8	31.8
Katanning	30.0	30.5	28.3	23.1	18.7	14.9	14.9	16.6	17.5	22.0	24.3	26.0
Average	30.3	29.5	26.8	22.7	18.3	15.4	14.5	15.4	17.7	20.7	25.0	28.4
Esperance	26.9	26.0	24.5	22.1	19.6	17.1	17.3	19.4	19.2	21.9	23.3	22.3
Average	26.2	26.4	25.2	23.1	20.2	17.8	17.0	17.7	19.4	21.1	23.0	24.7
Kalgoorlie/Boulder	33.8	30.2	26.6	21.9	18.6	16.3	16.9	20.7	23.3	26.6	28.7	30.0
Average	33.6	31.9	29.6	25.1	20.4	17.4	16.4	18.3	22.1	25.6	28.9	32.0
Eucla	24.8	27.1	21.9	21.6	19.6	18.6	18.4	21.3	22.4	24.3	25.5	25.0
Average	25.6	25.4	24.9	23.4	20.9	18.7	17.9	18.9	20.9	22.7	23.5	24.4

Source: Bureau of Meteorology

Dry south-easterlies predominate further north, and only cloud bands from the northwest that occasionally extend over the Pilbara, Gascoyne and interior parts of the State produce any significant rains.

As summer approaches, the highs migrate further south and most of the State is affected by easterly winds. These winds originate from the hot dry interior, producing high temperatures and low humidity levels in western areas. Near the coast, welcome relief from the hot weather comes from the reliable sea breeze in the afternoon. The sea breeze persists into the evening making for pleasant summer nights.

In the north, the monsoon develops resulting in thunderstorm activity and the occasional tropical cyclone. Cyclones usually develop well offshore and sometimes threaten communities with strong winds and heavy rain. The coastline near Port Hedland is the most susceptible area with one cyclone expected every two years.

2.2 – MINIMUM TEMPERATURES FOR SELECTED WEATHER STATIONS, 1995 VERSUS LONG TERM AVERAGES (Celsius)

	Jan.	Feb.	Mar.	Apr.	May	Jun.	Jul.	Aug.	Sept.	Oct.	Nov.	Dec.
Kununurra	24.9	25.2	23.9	21.2	19.2	16.0	16.0	16.9	21.7	23.2	25.5	25.4
Average	25.1	24.9	24.1	21.3	19.1	15.9	15.0	17.5	20.8	23.7	25.4	25.7
Broome	27.2	25.1	24.1	23.4	17.3	14.7	15.1	13.5	20.4	20.9	25.6	25.7
Average	26.2	25.9	25.4	22.6	18.4	15.2	13.6	15.0	18.4	22.2	24.9	26.4
Port Hedland	25.7	25.3	23.2	22.9	17.1	14.9	12.8	13.4	16.8	18.5	21.9	24.7
Average	25.4	25.3	24.3	21.1	17.1	13.9	12.0	12.9	15.2	17.9	21.1	23.7
Learmonth	22.5	24.4	21.8	21.3	15.8	13.3	11.0	11.6	14.4	16.3	18.7	20.6
Average	23.0	24.3	23.1	20.6	16.1	13.4	11.4	12.5	14.0	16.2	18.4	20.6
Carnarvon	23.3	24.7	22.4	20.8	14.9	11.6	11.5	11.7	15.6	16.6	19.2	21.5
Average	22.4	23.3	22.0	19.0	14.8	12.4	11.0	11.6	13.9	16.3	18.5	20.4
Newman	26.5	23.0	20.1	18.7	12.0	9.2	8.0	9.5	16.0	17.9	21.1	23.5
Average	25.0	24.3	22.3	18.3	13.0	9.2	7.8	10.1	13.6	17.8	21.3	23.9
Meekatharra	25.1	22.3	19.0	16.0	11.3	8.0	8.3	9.1	13.5	15.9	18.3	22.0
Average	24.1	23.6	21.5	17.0	11.8	8.7	7.3	8.4	11.5	14.8	18.5	21.9
Geraldton	18.5	19.6	18.4	16.2	12.7	10.0	10.4	8.6	9.1	11.4	13.9	16.6
Average	18.3	19.2	17.9	15.3	12.7	10.9	9.3	8.8	9.2	10.9	13.7	16.2
Perth Airport	19.2	18.7	17.9	13.9	10.7	8.3	9.6	9.3	10.2	11.7	13.2	16.2
Average	16.7	17.4	15.7	12.7	10.2	9.0	8.0	7.9	8.8	10.1	12.4	14.6
Albany Airport	14.8	14.3	13.5	11.0	9.0	7.8	8.0	7.8	9.0	9.6	10.1	13.2
Average	13.5	14.4	13.3	11.6	9.8	8.1	7.4	7.3	7.9	9.0	10.6	12.3
Merredin	19.1	18.7	16.5	11.9	8.0	6.3	6.6	6.3	7.5	9.9	12.4	14.4
Average	17.6	17.9	16.1	12.8	8.7	6.9	5.5	5.4	6.7	9.5	12.7	15.8
Katanning	14.3	14.4	12.9	9.1	6.3	6.3	6.0	6.2	7.0	8.2	8.8	12.7
Average	13.6	13.7	12.6	10.3	7.9	6.5	5.4	5.5	6.4	7.6	10.0	12.2
Esperance	16.2	15.8	14.7	11.5	10.3	8.8	8.9	9.2	10.4	11.1	12.2	14.7
Average	15.5	15.9	14.9	13.1	10.8	8.9	8.1	8.5	9.5	10.7	12.7	14.4
Kalgoorlie/Boulder	19.2	18.0	14.9	11.9	7.6	5.8	5.6	5.6	9.1	11.3	13.2	16.1
Average	18.1	17.6	16.0	12.4	8.4	6.1	4.7	5.4	7.8	10.8	13.9	16.5
Eucla	15.4	16.7	14.3	12.3	10.3	9.9	7.9	8.1	10.3	12.3	12.7	15.5
Average	16.5	16.8	15.9	13.4	10.4	8.2	7.1	7.4	9.0	11.1	13.2	14.9

Source: Bureau of Meteorology

While many systems fade over ocean waters, cyclones moving inland gradually weaken into rain bearing depressions and even though floods often occur, the rain is usually welcome. The heaviest rainfall ever recorded in one day in the State was 747 mm at Whim Creek from a cyclone in 1898.

The highest wind gust ever recorded on the Australian mainland was 259 km/h at Mardie in 1975 during Tropical Cyclone *Trixie*. That same system was responsible for major flooding further south in the Gascoyne and Goldfields region.

Cyclones that travel southwards down the west coast can pose a serious threat to more heavily populated communities. Extreme fire weather conditions can occur over the southwest of the State due to the strong and hot northerly winds in such events.

2.3 – RAINFALL FOR SELECTED WEATHER STATIONS

Station	1991	1992	1993	1994	1995	Mean
	mm	mm	mm	mm	mm	mm
Kununurra	604	410	953	1 003	841	744
Halls Creek	811	217	1 039	593	685	522
Broome	766	132	629	435	600	550
Port Hedland	213	119	405	225	348	302
Learmonth	210	256	239	219	376	266
Carnarvon	251	371	165	134	268	223
Newman	200	306	260	167	509	295
Meekatharra	115	377	170	77	307	219
Geraldton	495	444	384	319	386	470
Perth Airport	903	960	666	609	793	799
Albany Town	874	1 097	878	813	904	937
Merredin	309	462	324	193	405	326
Narrogin	508	580	524	352	466	506
Katanning	502	578	510	347	430	483
Esperance	466	824	520	404	668	612
Kalgoorlie/Boulder	168	529	326	245	480	261

Source: Bureau of Meteorology

The hottest time in the Kimberley is in November and December before the onset of the monsoon. Further south, January and February are the hottest months. Maximum temperatures in excess of 40°C have been recorded throughout the State except the far southwest coast. The highest temperature ever recorded was 50.7°C at Eucla on 22 January 1906. Coastal temperatures are greatly modified by the occurrence of the sea breeze.

During the winter months, average maximum temperatures range from above 30°C in the Kimberley to 14–15°C near the south coast. Overnight minima are coldest in southern inland areas where averages of 4–6°C are experienced. The lowest temperature ever recorded was –6.7°C at Booylgoo Springs in the Goldfields on 12 July 1969.

Weather Highlights 1995

Most of the Southwest Land Division recorded below average rainfall for the first four months of 1995. However, widespread rains were registered during May as a series of cold fronts affected the region commencing on the 17th. Further useful rains followed throughout the growing season with many centres reporting above average totals for the period.

Six tropical cyclones (TCs) occurred in the Western Australian region in 1995. The most significant of these was TC *Bobby* (refer 1996 Yearbook) which crossed the coast near Onslow at around midnight on the 24 February. Onslow was lashed by torrential rains, 425 mm in 48 hours, and destructive winds damaged about twenty buildings. Two prawn trawlers were capsized off Onslow with the loss of all seven crew members. The remnants of TC *Bobby* produced further flooding rains, some the highest on record, as the system passed over the Gascoyne, Murchison, Goldfields and Eucla. A large number of trucks were delayed at Norseman as a result of floodwaters making the Eyre Highway and the Trans-Australia rail line impassable for about a week.

TC *Chloe* was named on 6 April and crossed an uninhabited section of the North Kimberley coast between Kuri bay and Koolan Island. TC *Frank* produced heavy rainfall near North West Cape (Ningaloo 158 mm, Learmonth 133 mm) on 12 December, and caused some damage to roofs and trees at Exmouth and then to plantations and the horticultural areas at Carnarvon as it moved inland. TC *Gertie* crossed the coast near Mandora on 20 December and although it produced heavy rain (Mandora 161.8 mm) the system caused little damage.

A tropical depression off the Northwest coast brought exceptionally heavy rains to parts of the Pilbara and Gascoyne areas between 9 and 12 February. Balmoral, an outstation of Mardie recorded a massive 415.8 mm of rain on the 10th.

Severe thunderstorms hit some northern, eastern and hills suburbs of Perth on 23 February. The power supply was interrupted to over 50,000 homes, minor flooding cut some roads and a wind gust to 115 km/h was recorded at Perth Airport. Damage estimated to be in the order of $4 million was sustained, with the Kenwick area bearing the main fury of the storms. A line of severe thunderstorms affected some northern parts of the Southwest on 27 March. Duck egg sized hail was reported in the Woodridge area, south of Lancelin.

An intense low near Cape Leeuwin produced severe winds across the Southwest during 7 and 8 June. Wind gusts to 135 km/h were recorded around the Perth metropolitan area. Three tornadoes were reported during this event. One in the Merredin-Southern Cross area brought down a main power transmission line to Kalgoorlie-Boulder. On 7 July separate tornadoes caused damage to trees and property in areas south of Perth, around Mandurah,

Wellington Mill and Boyup Brook. The trail of damage in the vicinity of Boyup Brook was estimated to be 84 kilometres in length.

Thunderstorms and very heavy rains occurred in parts of the Southwest during 17 and 18 October, some of which set new daily record totals. While the rains were welcomed by most, some crops around York and other areas of the central Wheatbelt were damaged by localised heavy downpours, hail and strong winds. Severe thunderstorms in the northern and eastern Goldfields produced hail to 4 cm diameter on 16 and 17 November.

The electricity supply to parts of the Goldfields was interrupted on 19 December when severe thunderstorm activity damaged three high tension power towers in the Bulla Bulling area, approximately 60 kilometres to the west of Kalgoorlie-Boulder.

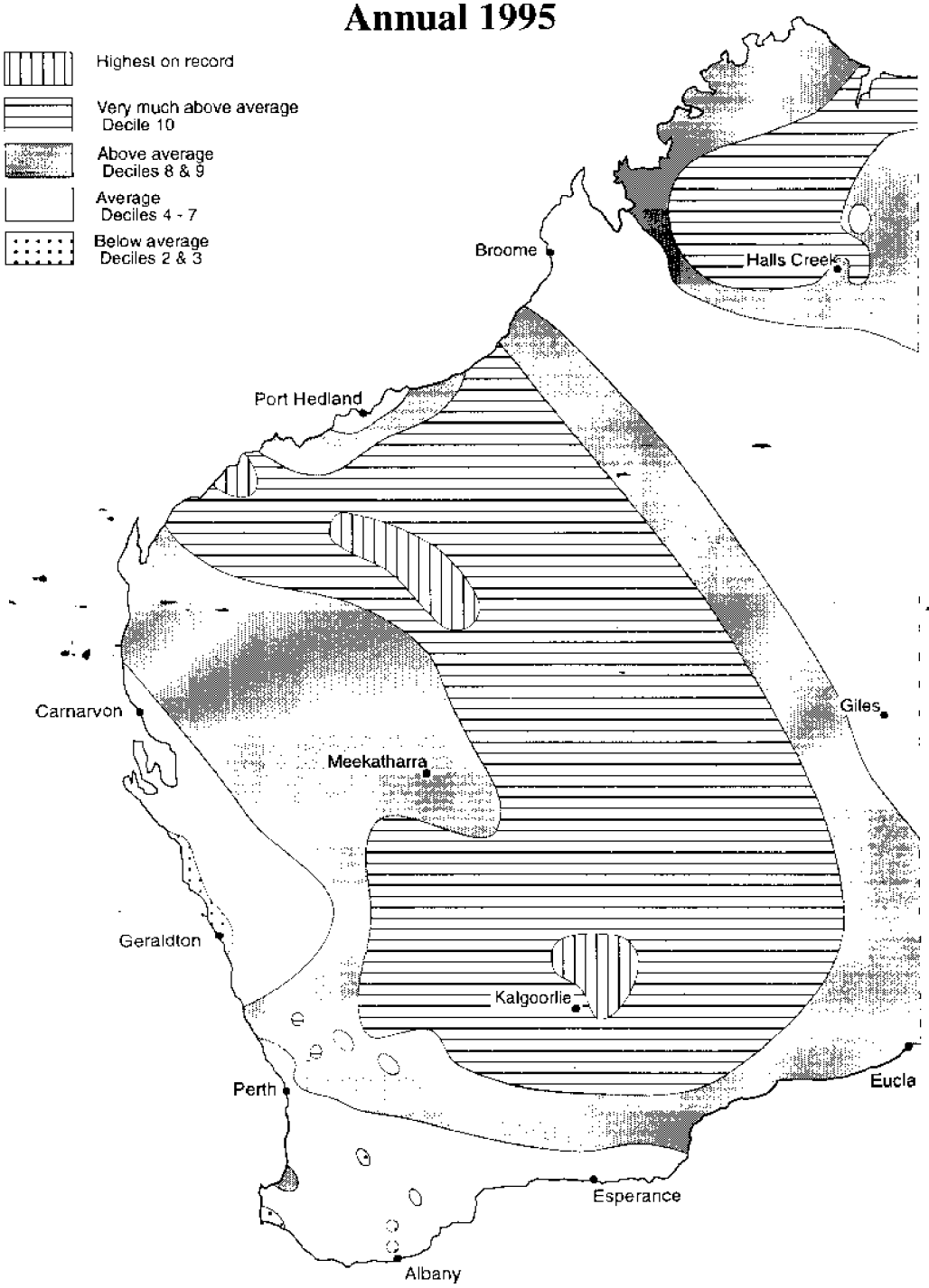
Disruptions to harvesting, damage to orchards and localised flooding in the Southwest were caused by severe thunderstorms on 23 and 24 December. Ongerup recorded 58 mm of rain in about an hour on the 23rd, while hail up to 11 cm diameter was reported from the Dalwallinu area.

The highest reported maximum temperature of 47.4°C was recorded at Roebourne on 2 December, while the lowest maximum was 8.4°C at Manjimup on 8 June. The lowest reported minimum temperature was –4.3°C at Eyre on 24 October, while the highest minimum of 33.1°C was recorded at Wittenoom on 30 January.

For Perth, the total rainfall for 1995 was 904.8 mm recorded over 117 days. Despite exceptional rains in July (278.6 mm over 23 days), the winter rainfall total was close to average for the period. The wettest day was 18 October when 68.2 mm of rain were recorded.

The average number of sunshine hours per day was 8.8 compared with the norm of 8.0 hours. Daily maximum and minimum temperatures were less than 1°C above normal for the year. The highest maximum and minimum temperatures were 40.2°C and 26.0°C respectively, both on 23 February. The lowest maximum was 11.5°C on 23 May. Overnight temperatures below 3°C were recorded on five occasions, with the lowest temperature being 1.3°C on 11 June.

Decile Range Distribution of Rainfall Annual 1995



TROPICAL CYCLONE *OLIVIA* (5 – 11 APRIL 1996)

Contributed by the Bureau of Meteorology

Tropical cyclone (TC) *Olivia* formed in the Timor Sea on 5 April while located approximately 370 kilometres to the north of Kalumburu. The cyclone moved on a westward path and slowly intensified over the next few days. It changed direction towards the south late on the 9th and was upgraded to a category 4 storm. On the 10th TC *Olivia* turned towards the south south-east and accelerated towards the west Pilbara coastline, crossing the coast that evening. The eye of the cyclone passed directly over the Montebello Islands between 4.30 and 6.30 pm and over Mardie Station at 8.30 pm. The system then tracked just to the west of Pannawonica and Paraburdoo as it accelerated towards the south south-east and weakened. The edge of the cyclonic eye also impinged on north-eastern parts of Barrow Island.

Severe property damage occurred on Barrow Island, at Pannawonica and Mardie Station, and minor damage was reported from Karratha, Dampier, Tom Price and Paraburdoo. The tidal surge at Barrow Island produced considerable coastal erosion.

TC *Olivia* was one of the strongest cyclones to have crossed the Australian coastline in recent decades. A wind gust of 267 km/h was recorded on Varanus island, northeast of Barrow Island. This is the strongest wind gust recorded at 10 metres above ground level in an Australian cyclone. A wind gust of 257 km/h was recorded at Mardie Station, this being the second highest recorded on the Australian mainland.

A Department of Transport tide gauge located in King Bay showed that a storm surge of just over two metres had occurred. Waves in the bay were estimated to have been up to 7 metres. Over the open ocean, waves up to 21 metres high were reported from the North Rankin A gas platform.

The Kimberley received general rains from TC *Olivia*, with Cygnet Bay reporting 84 mm on the 9th. Because the cyclone was moving relatively fast as it crossed the coast rainfall totals were not excessive. Notable rainfall registrations in the 24 hours to 9 am on the 11th were recorded at Yalleen (southeast of Mardie, 117 mm) and Wickham (114 mm). In the following 24 hours, as the decaying system moved on a south-easterly path towards the Great Australian Bight, parts of the Murchison, Goldfields and Eucla also recorded heavy rains. The final cyclone warning was issued during the afternoon of the 11th when TC *Olivia* was located approximately 400 kilometres north of Kalgoorlie, moving southeast at about 50 km/h. The remnants of the cyclone entered the Bight near Eucla the following morning.

Flora

Contributed by the Department of Conservation and Land Management (CALM)

Western Australia's flora enjoys world renown for its richness, uniqueness and colourful displays. There are estimated to be more than 12,000 species in Western Australia, of which 9,000 have been named. Some 70 % of the known plants in the south-west are found nowhere else in the world, and around 2,000 species are either endangered, vulnerable, rare or poorly collected.

According to a recent assessment of the Australian total of rare and threatened plant taxa, (species, subspecies or varieties) Western Australia has 42 %, with most being restricted to the southwest. The flora of Western Australia has considerable economic value, being harvested for cut flowers, seed and timber products, and being the basis of nursery production.

Threats to Western Australia's flora typically come from a wide range of often interrelated events. These include continued clearing of land, and the related changes in water table and salinity levels, invasive weeds, grazing, pests and disease, inappropriate fire regimes, recreation pressures, roadworks and urban development. Studies on the geographical distribution and biology of rare or threatened species show that their vulnerability has been due mostly to the activities of European settlement. Sometimes, rarity is due to specific habitat requirements.

The distribution of plant species across Western Australia is uneven with the southwest corner having two thirds of the floral diversity. Geologically, this region has been isolated from eastern Australia for about 30 million years. The flora has undergone immense evolutionary change in a short geological period and the level of richness in the area (especially in the heathlands and shrublands) is equivalent to that of tropical rainforest areas, such as the Philippines Archipelago or Malaysia.

Flora Conservation

Adequate conservation of flora involves protecting all levels of diversity and, therefore, keeping combinations of landscape, communities and species. This can be achieved in a well designed and integrated reserve network combined with sensitive management of land outside reserves.

Conservation of whole plant communities also helps conserve most of the fauna associated with that community (for example, pollinators and herbivores). If flora conservation aims only to protect individual species, the complementary benefits to fauna conservation will not be achieved (and vice versa).

Only limited information is available on the proportion of species and the samples of plant communities that are in conservation

reserves. In the Perth region approximately 8% of the species of the region have not been located in existing reserves. About 70% of threatened flora populations occur outside the conservation reserves network and 95% are not represented at all in conservation reserves.

CALM maintains a database of information on threatened flora populations. This database contains information on the location of the population, habitat details, biological information, such as number of plants and flowering status, and management information. This database provides a valuable tool for assisting in the conservation of the State's threatened flora.

Flora Conservation Outside Reserves

Many areas of land outside the formal system of conservation reserves can make a substantial contribution to nature conservation. These include reserves that are managed for other purposes (for example, water, timber, road or rail reserves), unmanaged reserves (for example, stock routes, undeveloped townsites or ancillary reserves), the pastoral country, farm bushland remnants, Aboriginal lands and other undeveloped private land (for example, urban bush areas). Nineteen percent of threatened flora populations are found on private land and 22% on road reserves.

Flora Research

Knowing how many species exist, and understanding their distribution, abundance and ecological requirements is basic to other research into flora and fauna conservation. It is estimated that around 25% of the State's vascular plant species are yet to be scientifically described and named. CALM's Herbarium maintains a database of all the names of Western Australian plants for which there are identified voucher specimens in the State Collection. This database is fundamental because it provides the current names of species and their variants to related databases.

In addition to a names database, the Herbarium has entered 370,000 specimen records into a database. For each specimen where full information is available, there is a precise locality, notes on soil type, associated vegetation, date of collection and details of the collector, and, from the names database, the current name of the species. Thus, a vast amount of data about a species and about the places where specimens were collected can be coupled with data on geology, climate, land tenure or other geographic information to give a comprehensive tool for conservation of the State's flora. The flora collection represents a small sample of the State's entire flora. Most specimens are of vascular plants as very little is known about lower order plants, such as the algae, fungi, lichens and mosses.

CALM is actively researching the State's threatened flora. Its major efforts include surveying, assessing the conservation status, providing management guidelines for rare and threatened flora and providing life history, genetic and ecological data on the most endangered species. This research information is used to prepare species recovery plans and regional management programs.

Currently, wildlife management programs for rare and threatened flora have been completed for the Merredin and Albany Districts and the Swan Region. Similar area based programs are being prepared for the Esperance, Katanning, Narrogin, Geraldton and Moora districts and the Central and Southern Forest Regions.

Within the next five years completed wildlife management programs for rare and threatened flora will probably cover most of the species-rich South West Botanical Province.

Fauna

Contributed by the Department of Conservation and Land Management (CALM)

Mammals

In Western Australia, 149 native terrestrial and marine mammal species are found. Three species of marine mammal, the Australian Sea-lion, the New Zealand Fur-seal and the Dugong, are included in this number. In addition, 4 species of seal, 19 species of whales and 16 species of dolphin have been recorded in Western Australian waters. Twenty-five species of mammals, including the Honey Possum, the Kimberley Rock-rat and the Western Brush Wallaby, are found only in Western Australia.

Terrestrial Mammals' Status

Western Australia's native mammal numbers have declined markedly since European settlement. Ten species have become extinct and another 31 are considered threatened. Research has shown that these mammals are predominantly non-flying and medium sized, weigh between 35 and 5,500 grams and are termed 'Critical Weight Range' mammals.

Extinctions and declines have occurred mainly in the arid and semi-arid parts of the State. Marsupials and rodents have been most affected with 30 species listed as rare or likely to become extinct. The timing of the decline is difficult to determine. However, available information suggests that mammals, particularly rodents and some of the wheatbelt marsupials, began to decline in the late nineteenth century, while the arid and semi-arid species persisted until the 1930s and 1950s.

Following European settlement, declines occurred when grazing stock and rabbits were introduced, large areas of land were cleared for agriculture, and predators, particularly foxes and cats, were introduced. In arid and semi-arid areas, where native ground dwelling mammals were adapted to the harsh conditions, the introduced species and changes in fire regimes had a devastating effect. Very few native species have benefited from the changes brought by European settlement. Red Kangaroos are one exception; their numbers appear to have increased in some parts of the pastoral districts because of the increased availability of water.

Conservation

Mammal conservation depends on significant suitable habitat areas being maintained and control of introduced competitors or predators. Important terrestrial reserves for mammal conservation currently include Bernier, Dorre and Barrow Islands, Perup, Tutanning, Boyagin, Two Peoples Bay and Prince Regent Nature Reserves, Drysdale River and Fitzgerald River National Parks and Dryandra Woodland. It is critical that species requirements are researched so that habitat areas can be managed appropriately.

Recovery plans have been written for threatened species to specify actions to ensure the survival of each species, using habitat and population management strategies determined by prior research. Habitat management strategies include special fire regimes and guidelines to harvest timber, to manage public use of strategic areas, and to create vegetated corridors to link isolated habitats. For instance, research in the southern jarrah forest has shown that the dense thickets required by Tammar Wallabies for protection from fox predation thin out after long periods without fire. Prescribed burning is now used in certain areas to regenerate those thickets as their value to Tammar Wallabies declines.

Marine Mammals' Status

The New Zealand Fur-seal (*Arctocephalus forsteri*) and the Australian Sea-lion (*Neophoca cinerea*) breed in Western Australia and were heavily exploited by sealers when the State was being developed. While it was feared for many years the populations had drastically declined, it was not until 1990 that the first thorough census of these species was undertaken in Western Australia. Surveys during 1990 and 1991 recorded about 3,100 Australian Sea-lions and 5,700 New Zealand Fur-seals around the Western Australian coast. New Zealand Fur-seals breed on 17 islands while Australian Sea-lions breed on 20 islands off the south coast, three islands in Jurien Bay and the Abrolhos Islands.

The two main whale species found along the Western Australian coast are the Humpback Whale (*Megaptera novaeangliae*) and the Southern Right Whale (*Eubalena australis*). Southern Right Whales were so heavily exploited in Western Australia's southern waters between the 1830s and 1860s that the population almost became extinct. The first reported sighting this century was in 1955, involving a single cow and calf. An ongoing monitoring program from 1976 has shown the population to be steadily recovering with the population estimated at 600–800 in 1994.

Humpback Whales were hunted off Western Australia between 1912 to 1963, with at least 30,000 taken between 1934 and 1963. It has been estimated that the population when whaling ceased in 1963 was down from a pre-harvest level of 15,000 to about 800. Western Australian Humpback Whale numbers have increased significantly since whaling ceased and current estimates show the population to be about 3,850 in 1991–92. Sperm Whales were also hunted off Western Australia until 1978.

Conservation

Marine mammals have not suffered the same declines as the land dwelling species. However, populations of the Australian Sea-lion, New Zealand Fur-seal, Humpback Whale, Sperm Whale and Southern Right Whale have been considerably reduced by hunting. In 1980 the Commonwealth Government passed the *Whale Protection Act* banning whaling in Australian waters and populations are recovering following the ban on hunting. These mammals are also protected under the *Western Australian Wildlife Conservation Act*.

Birds

About 510 bird species are found in Western Australia including 380 breeding species and 130 non-breeding migratory or visiting species. Fourteen bird species are endemic to the State. These are Carnaby's and Baudin's Black-cockatoo, Western Long-billed Corella, Red-capped Parrot, Western Rosella, Noisy Scrub-bird, White-breasted Robin, Red-winged Fairy-wren, Black Grass-wren, Western Bristlebird, Dusky Flyeater, Western Thornbill, Western Spinebill and Red-eared Firetail. Of these, the Grass-wren occurs only in the Kimberley, and the Dusky Flyeater in Kimberley, Pilbara and Gascoyne regions, while the remainder are restricted to the southwest of the State.

Status

Currently 31 bird species or subspecies are declared threatened under the *Wildlife Conservation Act* and a further four species are declared in need of special protection. Of Western Australia's 14 endemic species, five — the Noisy Scrub-bird, Baudin's Black-cockatoo, Carnaby's Black-cockatoo, Western long billed Corella and the Western Bristlebird — are gazetted as threatened or in need of special protection. Some of Western Australia's bird species, such as the Grey Falcon and Red Goshawk, may have always been rare while numbers of other birds, like the Noisy Scrub-bird and the Gouldian Finch, are known to have declined dramatically since European settlement.

A few species including the Magpie, Galah, Little Lorella, Silver Gull, Crested Pigeon, Welcome Swallow, Australian Shelduck, Maned Duck and Pink-eared Duck have expanded in range and/or numbers since European settlement. These species have been favoured by changes to food systems and habitats brought about by European settlement, for example widespread cultivation of cereal crops and large open-pit refuse disposal. Many other species have declined in range or numbers over the last 150 years, with the major declines occurring in the last 50 years or so.

Conservation

To conserve bird species in the wild requires protection of their habitat (particularly breeding habitat) and protection from exotic predators. CALM gives a high priority in the State's conservation reserve system to the inclusion of prime bird habitat areas such as large wetlands. Major reserves important in this way include the Fitzgerald River National Park and the Prince Regent River Nature Reserve.

Australia is a signatory to the Ramsar Convention to protect waterfowl habitat. The convention encourages countries to establish reserves on wetlands and to work towards increasing waterfowl population. Nine areas in Western Australia have been listed under this convention as wetlands of international importance. The listed areas are: the Ord River Floodplain, Lakes Argyle and Kununurra, Roebuck Bay, Eighty Mile Beach, Forrestdale and Thompsons Lakes, Peel Yalgorup System, Lake Toolibin, Vasse-Wonnerup System and the Lake Warden System.

Australia is also signatory to international agreements with Japan and China to protect migratory birds. These agreements provide for cooperation to protect birds which migrate between the respective countries, and recognise that conserving migratory species requires international action. The agreements promote such measures as controlling the taking of migratory birds, establishing sanctuaries to protect the birds and their habitats, undertaking joint research and exchanging information and publications.

Illegal nest robbing for the avicultural trade is a major threat to Red-tailed and White-tailed Black Cockatoos in Western Australia's South-west as their nests are destroyed and birds removed. Illegal operators may take young birds from the wild and then claim they had been bred in captivity from adult birds held lawfully under licence. Recent advances in DNA technology allows captive breeding claims to be tested, which has led to detection and prosecution of illegal trappers.

Reptiles

Australia's reptile fauna includes more than 750 known species. Of these, 440 species occur in Western Australia. The sandy deserts of Western Australia have one of the richest reptile faunas in the world; the Great Victoria Desert and the Great Sandy Desert each has about 65 species of lizards.

Status

Few reptiles in Western Australia are declared rare or threatened, although the status of many is unclear because it is not known how many there are or where they live. Eleven species are currently listed as threatened.

Several other reptiles are listed as needing special protection because past hunting has depleted populations, they live only in a few places, or their numbers have been observed to decline. They are the Saltwater and Australian Freshwater crocodiles and Ramsay's and Carpet pythons. No species of reptile is known to have become extinct in Western Australia since European settlement. Several species have declined in range and abundance, largely as a result of clearing land for agriculture or urban development.

Conservation

One of the world's rarest reptiles, the Western Swamp Tortoise is known to live only in one nature reserve near Perth. Its conservation has been the subject of intensive research by CALM, the University of Western Australia and the Perth Zoo.

A captive breeding colony has been established and, despite early difficulties, has successfully raised hatchlings since 1989. A recovery plan has been developed that will involve buying additional habitat, extending swamp life, controlling exotic predators, breeding in captivity and reintroducing hatchlings to the wild. Four species of marine turtles have been recorded breeding in Western Australia, the Green, Flatback, Hawksbill and Loggerhead. All four depend on access to undisturbed and unpolluted beaches to nest. In common with Leatherback and Olive Ridley turtles, they are migratory. World-wide turtle populations are under enormous human pressure. The Green, Loggerhead and Hawksbill turtles travel long distances from nesting to feeding grounds. CALM, in association with communities in the north-west, has been studying turtle migration and behaviour through a tagging program. Marine turtle conservation in Western Australia depends upon national and international support and cooperation.

Saltwater Crocodiles were hunted to near extinction in the Kimberley before hunting was prohibited in 1970. Since then crocodile numbers have slowly recovered. In 1988 commercial crocodile farming commenced in Western Australia and now three licensed farms are operating. The long term viability of wild crocodile populations is enhanced by these farms. A management program for both Saltwater and Freshwater crocodiles has been in operation for some years now.

Amphibia

Frogs are the only amphibians in Australia. Two families of frogs are represented in Western Australia: the Hylidae (Tree Frogs – 25 species) and the Leptodactylidae (Ground Frogs – 53 species). Western Australia's frog fauna is comparatively rich, with its 77 species forming more than one third of Australia's known 182 species. Forty-two species are known only in this State, including 28 of the 30 species occurring in the southwest. Several genera found elsewhere in Australia are most diverse in Western Australia, for example Geocrinia, Uperoleia, Heleioporus and Neobatrachus, while the burrowing genera Arenophryne and Myobatrachus occur only in this State.

Status

Three species, Geocrinia vitellina (Orange-bellied Frog), G. Alba (White-bellied Frog) and an as yet unnamed species are gazetted as threatened fauna because of restricted distributions and vulnerability to habitat change. No species of frog is known to have become extinct in Western Australia since European settlement.

Conservation

Although many species of frog can withstand changes in the uses of land, many others are vulnerable to disturbance. Few survive major land disturbances such as the salinity changes occurring in the wheatbelt. Several species may perish in the wake of agricultural clearing or urbanisation. Species of the Geocrinia rosea complex, for example, are restricted to permanently damp sites in the lower southwest and have not survived the destruction of their habitat by

agricultural clearing or trampling of stock. A recovery plan has been published for the two Geocrinia species listed as threatened fauna.

Terrestrial Invertebrates

Invertebrates (animals without backbones) play important roles in every ecosystem and represent about 98% of the Earth's animals. Nevertheless, because most invertebrates are very small and most people's experience of them is restricted to the small proportion of species that are nuisances or economic pests, the ecological importance of invertebrates is rarely appreciated.

The number of invertebrate species in Western Australia is not known but it is probable that several hundred thousand exist. The main types of invertebrates are insects, arachnids (spiders, scorpions, mites, ticks), myriapods (centipedes, millipedes) and annelids (earthworms, leeches). About 90% of invertebrates are insects. The forests of south-west Western Australia have been estimated to support some 15,000 to 20,000 species of insects.

Status

Invertebrates are characteristically smaller and therefore more abundant than vertebrates. All Jewel Beetles (Family: *Buprestidae*), the primitive ant (*Nothomyrmecia macrops*), a blind cockroach, a schizomid spider and two species of water mite are protected. Twenty species of invertebrate are now listed as threatened, including a mollusc, 10 arachnids, 4 crustaceans, 2 millipedes, 3 crickets and 3 native bees. One species of native bee is presumed to be extinct. In Western Australia the conservation status of most invertebrate species is unknown as the majority are yet to be described by science. This lack of a taxonomic foundation has seriously hindered research on much of Western Australia's invertebrate fauna.

For a limited number of invertebrates, however, considerable taxonomic, biological and ecological information is available. These include species of economic importance such as agricultural and forest pests and macro-invertebrates of intrinsic interest to naturalists, for example, dragonflies, lacewings, beetles, butterflies, cicadas, spiders and scorpions.

The impact of European settlement on some of Australia's vertebrate fauna has been devastating and it is quite likely that the impact on some invertebrates has also been severe.

Conservation

Conserving such a large and diverse group of animals presents considerable logistical problems. Despite their ecological significance, research and management committed to the conservation of invertebrates lag far behind that for vertebrate animals. Concern with pest invertebrates has focused on their control. Nevertheless, such research has contributed to the knowledge of invertebrate biology and population dynamics. In Western Australia, research is continuing into forest pests such as Jarrah Leafminer, Gum Leaf Skeletonizer, Autumn Gum Moth and Bullseye Borer.

The health of most ecosystems is dependent on the functions provided by invertebrates and micro-organisms. These animals are too small and poorly known to attempt to protect them at a species level. Emphasis will, therefore, need to be placed on conserving a range of habitats to conserve the invertebrate fauna associated with those habitats. CALM is aiming to conserve a range of habitats so the invertebrate fauna who live in them can survive.

Marine and Freshwater Fauna

The majority (around 1,040) of the 1,500 species of fish found in Western Australian waters are tropical. The remainder are either southern temperate (400 species) or freshwater (60 species). Most marine organisms have the ability to disperse in currents, usually as eggs or larvae. Consequently marine ecosystems generally have a much higher degree of interconnection than terrestrial ecosystems.

Status

Western Australia's coastal waters fauna has been increasingly exploited since European settlement. Most species have been managed as commercial fisheries with some species exploited at very high levels. In spite of this exploitation of the marine environment, unlike the terrestrial environment, no species are known to have become extinct. Habitat degradation and destruction in coastal waters and estuaries, largely through pollution, is probably the greatest threat to the marine fauna. In the northwest the mollusc Drupella has extensively destroyed corals. This may be a natural event or the result of an unknown artificial disturbance. Although exotic species have been introduced unintentionally (in ships' ballast water), they have not had the same effects as have occurred in terrestrial ecosystems.

Conservation

It is taking longer to establish a system of marine conservation reserves representing all the major marine habitat types occurring in Western Australia and their faunas and floras than it has to set up an equivalent terrestrial system. Six marine conservation reserves have recently been established, the most significant being the Ningaloo and Shark Bay Marine Park. Exploitation pressure in marine organisms has been controlled by limiting entry to commercial fisheries, and introducing bag limits and closed seasons in recreational fisheries.

Two species of fish found only in the subterranean waters of North-West Cape, the Blind Gudgeon and the Blind Can-eel, are gazetted as threatened fauna because of their restricted distribution and vulnerability to changes in the aquifer that may follow increased use of groundwater. The degree to which the effects of waste disposal (particularly sewage) in coastal waters between Bunbury and the Perth metropolitan areas can be limited will influence future marine habitat and biota conservation in this region, which is experiencing the most rapid human population growth in Western Australia.

Conservation

Contributed by Department of Conservation and Land Management (CALM)

National Parks

National parks are for wildlife and landscape conservation, scientific study, preservation of features of archaeological, historic or scientific interest and enjoyment by the public. They have national or international significance for scenic, cultural or biological value.

The area of the 63 national parks as at 30 June 1996 was 4,872,070 hectares. A major change to the national park estate was an addition of 1,221 hectares to the D'Entrecasteaux National Park.

2.4 – NATIONAL PARKS, 1996

National Park	*Area (ha)*	*National Park*	*Area (ha)*
Alexander Morrison	8 500	Millstream-Chichester	199 736
Avon Valley	4 366	Moore River	17 540
Badgingarra	13 121	Mt Augustus	9 168
Beedelup	1 786	Mt Frankland	30 830
Boorabbin	26 000	Nambung	18 362
Brockman	49	Neerabup	1 069
Cape Arid	279 382	Peak Charles	39 959
Cape Le Grand	31 578	Porongurup	2 511
Cape Range	50 581	Purnululu (Bungle Bungle)	239 723
Collier Range	235 162	Rudall River	1 283 706
D'Entrecasteaux	114 566	Scott	3 273
Drovers Cave	2 681	Serpentine	4 363
Drysdale River	448 264	Shannon	52 598
Eucla	3 342	Sir James Mitchell	497
Fitzgerald River	329 039	Stirling Range	115 920
Francois Peron	52 529	Stokes	9 726
Frank Hann	67 550	Tathra	4 322
Geikie Gorge	3 136	Tomdirrup	3 936
Gloucester	875	Tuart Forest	2 049
Goongarrie	60 397	Tunnel Creek	91
Gooseberry Hill	33	Walpole Nornalup	15 861
Greenmount	58	Walyunga	1 812
Hassell	1 265	Warren	2 982
Hidden Valley (a)	2 068	Watheroo	44 474
John Forrest	2 676	Waychinicup	3 982
Kalamunda	375	West Cape Howe	3 517
Kalbarri	183 004	William Bay	1 734
Karijini (Hamersely Range)	627 445	Windjana Gorge	2 134
Kennedy Range	141 660	Wolf Creek Crater	1 460
Leeuwin-Naturaliste	19 119	Yalgorup	13 001
Lesmurdie Falls	56	Yanchep	2 842
Lesueur	26 987	**Total**	**4 872 070**

(a) Not yet gazetted.
Source: CALM

Conservation Parks

Conservation parks have the same purposes as national parks, but they do not have the same national or international significance. They have significant local or regional value for conservation and recreation. The area of conservation parks as at 30 June 1996 was 117,316 ha, representing an increase of 63 ha in 1995–96 through the creation of a conservation park at Mandurah.

Nature Reserves

Nature reserves are for wildlife and landscape conservation, scientific study and preservation of features of archaeological, historic or scientific interest. Wildlife values may not be commercially exploited and recreation which does not harm natural ecosystems is allowed.

The area of natural reserves as at 30 June 1996 was 10,784,751 ha representing an increase of 2,797 ha in 1995–96. Notable additions were the creation of nature reserves at Moora (1,430 ha), Geraldton (458 ha) and Esperance (716 ha) and the addition of 213 ha to the Lake Logue Nature Reserve.

State Forests

State forests are managed for multiple purposes, including water catchment protection, recreation, timber production on a sustained yield basis and conservation. Provision is also made for public utilities and mineral production. Within State forests, designated areas are managed for specific purposes, such as conservation or optimum yield of exotic plantings. The area of State forest as at 30 June 1996 was 1,724,954 ha, an increase of 72 ha for the year.

Timber Reserves

Timber reserves declared under the CALM Act are managed on the same basis as State forests. The category is transitional; as reserves are evaluated they may be changed to a more appropriate tenure, such as State forest or nature reserve. The area of timber reserves as at 30 June 1996 was 141,487 ha. There were no changes during the year.

Marine Parks and Reserves

Marine parks are managed for marine conservation and recreation, with areas zoned for commercial fishing on a sustained yield basis. Marine nature reserves are managed for the conservation of marine and terrestrial flora and fauna and their habitats. Fishing and collecting are not permitted. In June 1996, the area of marine parks comprised approximately 1,013,940 hectares. The area of marine nature reserves at the same period was approximately 132,000 hectares. There were no changes during the year.

5(g) Reserves

The CALM Act categorises some land as 5(g) reserves. These reserves are not national parks, conservation parks, nature reserves or marine reserves. Predominantly they have a conservation or recreation purpose. The area of 5(g) reserves as at 30 June 1996 was 231,937 ha, a reduction of 230 ha from the previous year.

2.5 – CALM: MANAGED LANDS AND WATER, JUNE 1996

Tenure Classification	*Area (ha)*
National Park	4 872 070
Conservation Park	117 316
Nature Reserve	10 784 751
Marine Park	1 013 940
Marine Nature Reserve	132 000
State Forest	1 724 954
Timber Reserve	141 487
Reserve (a)	
Freehold	33 870
Leasehold	1 211 417
Miscellaneous	12 978
Section 5(g)	231 937
Total	**20 276 774**

(a) Includes land reserved under the Land Act (1933), is not a park or reserve, and which was administered by the National Parks Authority.
Source: CALM

Environmental Protection

Contributed by the Department of Environmental Protection.

Legislation and Management

Environmental protection in Western Australia is guided by the *Environmental Protection Act 1986*. The Act is administered by the Environmental Protection Authority and the Department of Environmental Protection.

The Environmental Protection Authority is an independent statutory authority and is the major provider of independent environmental advice to the Government. It consists of five members, including a chairman, who are not public servants and who are appointed by the Governor because of their interest in and experience of environmental matters.

The Department of Environmental Protection is headed by a chief executive officer and provides the EPA with professional and technical support, particularly in relation to protection policy and assessment. The department also provides advice to the Minister for the Environment on environmental protection issues.

Environmental Systems

A bigger focus on environmental studies has seen the formulation of the Environment Systems Division which brings together the environmental science expertise in the agency. This new division primarily focuses on generating the scientific information needed to understand the operation of environmental systems such as airsheds, catchments and marine ecosystems and applying this knowledge to the development of environmental management strategies and policies. It also has an important role in identifying environmental systems under threat or pressure and developing policy responses to ensure ecologically sustainable development.

In 1995–96, three of the major scientific studies conducted by officers in this division were completed — two on Perth's air quality and one on Perth's coastal waters. All of the studies were subject to extensive peer review. The Perth Photochemical Smog Study and the Perth Haze Study will provide, for the first time, a comprehensive overview of the nature and source of Perth's air quality problems.

The smog study — a joint effort between the department and Western Power Corporation — began in early 1992 and was completed in May 1996. Photochemical smog is characterised by high concentrations of ozone at ground level and occurs mainly during the spring to autumn period. One of the major findings of the study was that there are four main sources contributing to smog — motor vehicles, industrial emissions, area sources and natural emissions. Results showed that motor vehicles are the dominant cause of Perth's photochemical smog.

The haze study aimed to look at the nature and sources of fine particles that are responsible for the reduced visibility of Perth's air during the winter months. Several sources were identified as contributing to Perth's fine-particle loading and their contributions have been quantified. Many of the sources are natural and include soil, sea-salt and plants. However, the most dominant sources identified were combustion sources in winter, for example wood heater emissions, and controlled burns in spring, with somewhat differing relative contributions from motor vehicle exhausts. Smoke particles, depending on the location in Perth, caused severe fine particles loadings and reduced visibility.

The Southern Metropolitan Coastal Waters Study was also completed and consists of many scientific reports outlining technical findings as well as suggested directions for protecting Perth's coastal water quality. The goal of the study was to achieve the sustainable, multiple-use of Perth's marine environment by protecting and enhancing its quality, while maintaining economic and social development. The next stage for the study is to consult the key stakeholders and the community to ensure everyone agrees upon what is wanted from our coastal waters from Yanchep to south of Mandurah, and how they should be treated in the future.

Project Assessment

There was a continuing high level of economic activity in the State during the past year, particularly in the resources sector with numerous new mining and mineral processing projects. This increased activity has resulted in more projects being referred and assessed by the department and the Environmental Protection Authority, compared with previous years.

The tendency in recent years has been away from the setting of detailed environmental conditions in favour of proponents making specific commitments to environmental practices. Since these commitments are available at the public comment stage of

assessment, this trend has provided the public with a much better indication of the proponents' intentions for environmental management.

The introduction of the *Planning Legislation Amendment Act 1996* in August resulted in changes to Western Australia's planning laws giving the Environmental Protection Authority the power to assess and, if necessary, protect land from inappropriate use during the initial stages of the planning process. Previously the Environmental Protection Authority's assessment was delayed until subdivision and development were proposed.

Pollution Prevention

Western Australia is now facing new, and in some cases more complex, challenges in pollution prevention. Environmental systems are approaching carrying capacity limits and therefore require more sophisticated management. At the same time, there has been an increase of new industries requiring licensing, an increasing number of industries requiring inspection, and greater awareness of site contamination from old industries.

There have been major activities in pollution prevention in Western Australia recently, including both air quality and water quality. Regulations to control lead in petrol and emissions of hydrocarbons from storage tanks, and the introduction of a smoky vehicle response program, have contributed towards protecting Perth's air. Industries discharging waste into waters within catchments under stress, such as the Swan-Canning and Peel-Harvey, have received particular attention. As a result, there are now major upgrades to many sewage treatment plants and piggeries, and in the case of wool scouring facilities, proposed relocation to a more appropriate site.

An extensive review of the State's system for licensing industries to prevent pollution took place during the year to bring it into line with today's environmental protection expectations and requirements, including the principles of best practice environmental regulation.

Regional Environmental Protection

The Environmental Protection Authority has a new office in Geraldton and is expanding the existing regional offices.

The Mid-West is bordered by the Coorow Shire's southern boundary, east to Meekatharra and north to (but not including) the Shire of Ashburton. This region was previously serviced by officers in Perth or Kalgoorlie, but the large increase in proposed projects in the region has made it necessary to open the new office.

The department has also expanded the areas served by its other regional offices and is appointing extra staff to handle the expected increase in work load. The Kwinana office has expanded to include the City of Mandurah as well as continuing to service the Rockingham, Kwinana and Cockburn areas. The South-West regional office has greatly expanded eastwards and now includes shires north

to Waroona, east to Wagin, Katanning and Gnowangerup and south to Albany and Denmark. The Goldfields-Esperance region has expanded to the west to include such shires as Dumbleyung, Mount Marshall and Merredin and to the north to include Wiluna and Ngaanyatjarraku.

The area covered by the Pilbara region has remained the same, but an additional environmental officer has been employed at the office to help handle the environmental implications of the region's resource boom. The Perth office will still manage the Kimberley region which includes Broome, Derby-West Kimberley, Wyndham-East Kimberley and Halls Creek.

Waste Management

Waste management in the State progressed during the past year in three main areas — waste disposal, waste reduction and recycling and waste management facilities. Major achievements in waste reduction and recycling included the tabling of the Report of the Parliamentary Select Committee on Recycling and Waste management. Some of the 66 recommendations resulting from this report included banning green waste from landfill by the year 2000, enhancing the Government's paper recycling programs and supporting plans for a secure landfill for low level hazardous industrial wastes.

The development and implementation of the Wastetrack system was another major step forward for environmental protection. Wastetrack is a new, more environmentally friendly method of managing the State's grease trap wastes and was just one of several initiatives designed to improve liquid waste management. Infrastructure work was completed at the Intractable Waste Disposal Facility at Mt Walton East.

The department's strategy to upgrade clinical and related waste incinerators to rationalise this type of waste management in Western Australia progressed during the year with the majority of incinerators closing down. The strategy includes waste reduction and segregation to reduce the volume requiring incineration, licensing of clinical and related waste transport and more stringent controls on incinerators used for clinical and related waste destruction. Work continued on upgrading the incinerator in Welshpool which will become the main disposal in the State for medical waste.

Policy

The past year has seen further work on updating conservation recommendations on behalf of the Environmental Protection Authority. A call for nominations of areas of bushland which met the updated criteria resulted in about 300 areas being nominated. These areas have been reviewed against criteria set by the inter-agency technical working group and, where appropriate, field surveys were conducted to confirm conservation values of particular areas.

An agreement has been made with the Ministry for Planning to integrate the findings of the update with those findings of Perth's environmental plan which have been undertaken by the Ministry. A combined report of recommended areas in the Perth Metropolitan Region is expected to be released for public comment by December 1996. Recommendations for reserves outside the metropolitan area will need further consideration and will be reported on at a later date.

In July 1995, it was agreed that another State of the Environment Report should be undertaken to establish an ongoing framework for reporting on the condition of the environment, including indicators to measure the health of the environment. The size and diversity of the State has required a regional approach to the report with regions being based on geomorphological and vegetation characteristics. A draft report is due to be released for public comment in early 1997.

During the year, the Minister for the Environment completed consultation on the South-West Wetlands draft environment protection policy, as required under the *Environmental Protection Act 1986.*

A draft environmental protection policy to better gauge environmental management of the Swan and Canning rivers and their catchments was also released by the Environmental Protection Authority and Swan River Trust. The policy identifies the environmental values of the waterway and requires a program for their protection to be prepared by June 30, 1998. Environmental values to be protected include recreation, natural ecosystem functions, fishing, navigation and port functions.

A new initiative for the year was the establishment of the function of formulating policies and criteria for environmental impact assessment. The Environment Systems Division is working closely with the Environmental Protection Authority to ensure a quality assured and public process when establishing these policies and criteria.

Community Involvement

A program called Airwatch was developed by the department during the past year and has been taken up by several other Australian States. Airwatch is a schools program which allows students to be exposed to air quality issues in Western Australia. It started out as a local effort to combat Perth's air quality problems, but has developed as a national effort involving the CSIRO, the City of Melbourne, the Queensland Department of Environment and Heritage, the Institute of Natural Resources and Environment and the New South Wales Environmental Protection Authority.

The department is also investigating a successful Canadian model for enhancing community participation in environmental protection, called Community Action Plans.

Government

Chapter 3

GOVERNMENT

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Chapter 3

GOVERNMENT

Western Australia is one of the six federated sovereign States which, together with the Northern Territory and the Australian Capital Territory, constitute the Commonwealth of Australia. Thus, in addition to having its own Parliament and executive government, it is represented in the Federal legislature. As well as government at the Federal and State levels, there is a third system, that of Local Government, which functions through City Councils, Town Councils and Shire Councils. This chapter will focus on State and Local Government. For an outline of Western Australia's Constitutional development, refer to Chapter 4 of the 1993 Western Australia Year Book.

The Governor of Western Australia

The Governor of Western Australia is the personal representative of the Sovereign in the State and exercises the powers of the Crown in State matters. The present Governor of Western Australia, Major General Philip Michael Jeffery was appointed on 1 November 1993. He is the titular head of the Government and performs the official and ceremonial functions pertaining to the Crown.

In the event of the Governor's absence from Western Australia, the Lieutenant-Governor of the State is appointed Administrator. If there is no Lieutenant-Governor, it is customary for the Chief Justice of Western Australia to be appointed Administrator. During the absence from Australia of the Governor-General, it is usual for the senior among the State Governors to be appointed Administrator.

The State Parliament

The Crown, represented by the Governor, and the Parliament, comprising a Legislative Council and a Legislative Assembly, constitute the legislature of Western Australia.

Executive government is based, as in the case of the Commonwealth, on the system which evolved in Great Britain in the eighteenth century and which is generally known as the 'cabinet' system. The cabinet consists of Ministers of the Crown chosen for the Ministry from members of Parliament belonging to the political party, or coalition of parties, which is in the majority in the Legislative Assembly. The Constitution requires that at least one of the Ministers be selected from members of the Legislative Council. In Western Australia, as in the other Australian States, the office of principal Minister is designated 'Premier'.

3.1 – MINISTRIES FROM 1890

Premier	Political party	Date of assumption			Duration		
		Year	Day	Month	Years	Months	Days
Forrest	(a)	1890	29	December	10	1	17
Throssell	(a)	1901	15	February	—	3	12
Leake	(a)	1901	27	May	—	5	25
Morgans	(a)	1901	21	November	—	1	2
Leake	(a)	1901	23	December	—	6	8
James	(a)	1902	1	July	2	1	9
Daglish	Labor	1904	10	August	1	—	15
Rason	Liberal	1905	25	August	—	8	12
Moore	Liberal	1906	7	May	4	4	9
Wilson	Liberal	1910	16	September	1	—	21
Scaddan	Labor	1911	7	October	4	9	20
Wilson	Liberal	1916	27	July	—	11	1
Lefroy	Liberal	1917	28	June	1	9	20
Colebatch	Liberal	1919	17	April	—	1	—
Mitchell	National and C.P. coalition	1919	17	May	4	10	30
Collier	Labor	1924	16	April	6	—	8
Mitchell	National and C.P. coalition	1930	24	April	3	—	—
Collier	Labor	1933	24	April	3	3	27
Wilcock	Labor	1936	20	August	8	11	11
Wise	Labor	1945	31	July	1	8	1
McLarty	L.C.L. and C.P. coalition	1947	1	April	5	10	22
Hawke	Labor	1953	23	February	6	1	10
Brand	L.C.L. and C.P. coalition	1959	2	April	11	11	1
Tonkin	Labor	1971	3	March	3	1	5
Court, Sir C.	Liberal and C.P. coalition	1974	8	April	7	9	17
O'Connor	Liberal and C.P. coalition	1982	25	January	1	1	—
Burke	Labor	1983	25	February	5	—	—
Dowding	Labor	1988	25	February	1	11	12
Lawrence	Labor	1990	12	February	3	—	4
Court, R.	Liberal and N.P. coalition	1993	16	February	Still in office		

C.P. = Country Party;
N.P. = National Party (b);
L.C.L. = Liberal and Country League (c);
Labor = Australian Labor Party;
Liberal = Liberal Party

(a) No specific party designation.
(b) The National Country Party of Australia (WA) Inc. changed it's name to National Party of Australia (WA) Inc. on 2 October 1984.
(c) The name of the Party was changed to The Liberal Party of Australia (Western Australian Division) Inc. on 15 July 1968.

Since 1890, when responsible government was granted to Western Australia, there have been thirty separate Ministries. No organised political party existed in the Colony until the formation of a Labor party in the 1890s. A Labor Ministry assumed office in 1904.

The *Constitution Act 1889* provided for a Ministry of five members. This number was increased by subsequent amendments to the Act to 17.

The right to vote at parliamentary elections was extended to women by the *Constitution Acts Amendment Act 1899*. Membership of women to either House was provided for by the *Parliament (Qualification of Women) Act 1920*.

The first woman member of any Australian Parliament was Mrs Edith Dircksey Cowan, OBE, who was elected to the Legislative Assembly in March 1921 as member for West Perth. Mrs A.F.G. (later Dame Florence) Cardell-Oliver, MLA for Subiaco, became the first woman Cabinet Minister in Australia when she joined the McLarty Ministry in 1947.

Under the provisions of the *Acts Amendment (Electoral Reform) Act 1987*, which came into operation on 30 October 1987, three Electoral Distribution Commissioners were appointed to divide the State into 57 electoral districts, 34 in the Metropolitan Area (as described in the *Metropolitan Region Town Planning Scheme Act 1959*, as at 1 January 1987) and 23 in the remainder of the State. These districts return one member each to the Legislative Assembly.

The State is also divided into six regions — three Metropolitan regions conprising the Metropolitan electoral districts, a South-West region, an Agricultural region and a Mining and Pastoral region conprising the electoral districts which constitute the remainder of the State. The North Metropolitan Region and the South-West Region each return seven members to the Legislative Council, and the other electoral regions return five Council members.

The division process, was completed on 29 April 1988, when the final division was gazetted. This division applied to the election held in February 1989, and will apply to subsequent general elections for the Legislative Assembly.

A further provision of the Act, which extends the terms of members of both Houses of Parliament to four years, commenced from the thirty-third Parliament.

The Judicature

The two major factors in the development of the Australian legal system have been its British origin and the *Commonwealth Constitution of 1900*. This Statute, an Act of the Imperial Parliament in London, limited the legislative power of State Parliaments in some respects and created a federal legislature.

Since 1942, however, the Imperial Parliament can legislate for Australia only at Australia's request.

The sources of Australian law of today are, therefore, found in Commonwealth and State legislation, in some Imperial legislation and in the common law. Independence of the judiciary is an essential part of the Australian legal system.

3.2 – THE HONOURABLE MEMBERS OF THE LEGISLATIVE COUNCIL, JANUARY 1997 (a)

Name	*Political Party*	*Electoral Region*
A.M. Carstairs	Liberal	North Metropolitan
S.G.E. Cash	Liberal	North Metropolitan
K.M. Chance	Labor	Agricultural
E.J. Charlton	National	Agricultural
J.A. Cowdell	Labor	South West
M.J. Criddle	National	Agricultural
C.M. Davenport	Labor	South Metropolitan
R.E. Davies	Independent	North Metropolitan
E.R.J. Dermer	Labor	North Metropolitan
B.K. Donaldson	Liberal	Agriculture
G.J. Edwards	Labor	North Metropolitan
G.M. Evans	Liberal	North Metropolitan
V.E. Ferguson	Labor	East Metropolitan
P.G. Foss	Liberal	East Metropolitan
C.E. Griffiths	Liberal	South Metropolitan
N.D. Griffiths	Labor	East Metropolitan
S.J. Halden	Labor	South Metropolitan
T.R. Helm	Labor	Mining and Pastoral
B.J. House	Liberal	South West
P.R. Lightfoot	Liberal	North Metropolitan
P.H. Lockyer	Liberal	Mining and Pastoral
M.S. Montgomery	National	South West
N.F. Moore	Liberal	Mining and Pastoral
M.W. Nevill	Labor	Mining and Pastoral
M.D. Nixon	Liberal	Agriculture
M.G. Patterson	Liberal	South West
B.M. Scott	Liberal	South Metropolitan
J.A. Scott	Green	South Metropolitan
T.G. Stephens	Labor	Mining and Pastoral
W.N. Stretch	Liberal	South West
P. Sulc	Labor	East Metropolitan
R.J. Thomas	Labor	South West
D.G. Tomlinson	Liberal	East Metropolitan
D.W. Wenn	Labor	South West

SUMMARY	
The Liberal Party of Australia (Western Australian Division) Incorporated (Liberal)	15
Australian Labor Party (Labor)	14
National Party of Australia (National)	3
Independent	1
Green	1

(a) Current terms commenced on May 22 1993 and expire on May 21 1997.
Source: Parliament House Western Australia.

State Representation

Western Australia has been represented in the United Kingdom by an Agent General since 1892. An office is maintained at Western Australia House, 115 Strand, London, WC 2ROAJ.

The Agent General's Office acts as agent for the State Treasury and as a receiving agency for The Bank of Western Australia (BankWest). Western Australia's European Public Relations Office, and its tourist officer for the United Kingdom and Europe, also operate from Western Australia House.

The functions of the Office include:

- the representation of all Government Departments which have business in Britain and Europe;
- the purchase of government stores and equipment;
- an information resource for migrants;
- the encouragement of overseas private investment in Western Australia; and
- the provision of various types of assistance to visitors from Western Australia.

The Agent General for Western Australia is the personal representative in Britain of the State Premier. The State is also represented in Japan, an office being maintained by the Western Australian Government at Sankaido Building, 9-13 Akasaka, 1-Chome, Minato-Ku, Tokyo 107.

Travel centre managers of the Western Australian Tourism Commission also provide liaison on behalf of Government Departments which have business in other States and Territories of Australia, as well as overseas.

3.3 – MEMBERS OF THE LEGISLATIVE ASSEMBLY, JANUARY 1997

Name	*Political Party*	*Electoral District*
R.A. Ainsworth	National	Roe
M.I. Anwyl	Labor	Kalgoorlie
C.J. Baker	Liberal	Joondalup
Hon. C.J. Barnett	Liberal	Cottesloe
R.C. Bloffwitch	Liberal	Geraldton
M.F. Board	Liberal	Murdoch
J.L. Bradshaw	Liberal	Murray-Wellington
Hon. E.F. Bridge	Independent	Kimberley
C.M. Brown	Labor	Bassendean
A.J. Carpenter	Labor	Willagee
Dr E. Constable	Independent Liberal	Churchlands
Hon. R.F. Court	Liberal	Nedlands
Hon. H.J. Cowan	National	Merredin
E.J. Cunningham	Labor	Girrawheen
Hon. J.H.D. Day	Liberal	Darling Range
Hon. C.L. Edwardes	Liberal	Kingsley
Dr J.M. Edwards	Labor	Maylands
Dr G.I. Gallop	Labor	Victoria Park
L. Graham	Labor	Pilbara
Hon. J.F. Grill	Labor	Eyre
Hon. Dr K.D. Hames	Liberal	Yokine
K. Hodson-Thomas	Liberal	Canne
M.R. Holmes	Liberal	Southern River
Hon. M.G. House	National	Stirling
R.F. Johnson	Liberal	Hilarys
Hon. G.D. Kierath	Liberal	Riverton
J.C. Kobelke	Labor	Nollamara
I.D. MacLean	Liberal	Wanneroo
A.J. MacTiernan	Labour	Armadale
J.A. McGinty	Labor	Fremantle
M. McGowan	Labor	Rockingham
S.M. McHale	Labor	Thornlie
W.J. McNee	Liberal	Moore
N.R. Marlborough	Labor	Peel
A.D. Marshall	Liberal	Dawesville
B.K. Masters	Liberal	Vasse
Hon. K.J. Minson	Liberal	Greenough
Hon. R.K. Nicholls	Liberal	Mandurah
Hon. P.D. Omodei	Liberal	Warren-Blackwood
I.F. Osborne	Liberal	Bunbury
Hon. R.K. Parker	Liberal	Ballajura
Hon. P.G. Pendal	Independent Liberal	South Perth
Hon. A.K.R. Prince	Liberal	Albany
F. Riebeling	Labor	Burrup
E.S. Ripper	Labor	Belmont
M.H. Roberts	Labor	Midland
D.J. Shave	Liberal	Alfred Cove
Hon. G.J. Strickland	Liberal	Innaloo
D.F. Sullivan	Liberal	Mitchell
R.N. Sweetman	Liberal	Ningaloo
W.I. Thomas	Labor	Cockburn
M.W. Trenorden	National	Avon
F.C. Tubby	Liberal	Roleystone
Dr H. Turnbull	National	Collie
J.O. van de Klashorst	Liberal	Swan Hills
D.M. Warnock	Labor	Perth
Hon. R.L. Wiese	National	Wagin

SUMMARY	
The Liberal Party of Australia (Western Australian Division) Incorporated (Liberal)	29
Australian Labor Party (Labor)	19
National Party of Australia (National)	6
Independent Liberal	2
Independent	1

Source: Parliament House of Western Australia.

3.4 – STATE MINISTRY, JANUARY 1997

Minister	*Title of Office*
Hon. R.F. Court, BCom, MLA	Premier; Treasurer; Public Sector Management; Federal Affairs
Hon. H.J. Cowan, MLA	Deputy Premier; Commerce and Trade; Regional Development; Small Business;
Hon. C.J. Barnett, MEc, MLA	Resources Development; Energy; Education; Leader of the House in the Legislative Assembly
Hon. M.G. House, JP, MLA	Primary Industry; Fisheries
Hon. N.F. Moore, BA, Dip Ed, MLC	Mines, Tourism; Sport and Recreation; Leader of the Government in the Legislative Council
Hon. E.J. Charlton, MLC	Transport
Hon. C.L. Edwardes, B Juris, LLB, BA, MLA	Environment; Empoyment and Training
Hon. G.D. Kierath, MLA	Labour Relations; Planning; Heritage
Hon. P.G. Foss, QC, BA, LLB, MLC	Attorney General; Justice; the Arts
Hon. G.M. Evans, MBE, FCA, MLC	Finance; Racing and Gaming
Hon. A.K.R. Prince, LLB, MLA	Health
Hon. D.J. Shave MLA	Lands; Fair Trading; Parliamentary and Electoral Affairs
Hon. P.D. Omodei, MLA	Local Government; Disability Services
Hon. R.K. Parker MLA	Family and Children's Services; Seniors; Women's Interests
Hon. Dr. K.D. Hames MB, BS, JP, MLA	Housing; Aboriginal Affairs; Water Resources
Hon. J.H.D. Day BSc. BDSc. MLA	Police; Emergency Services
Hon. M.F. Board MLA	Works; Services; Multicultural and Ethnic Affairs; Youth

Source: Parliament House of Western Australia.

3.5 – SHADOW MINISTRY, JANUARY 1997

Shadow Minister	*Title of Office*
Dr G.I. Gallop, MLA	Leader of the Opposition; Treasurer; Federal Affairs
E.S. Ripper, MLA	Deputy Leader; Education; Accountability
Hon. T Stephens MLC	Leader of the Opposition in the Legislative Council; Aboriginal Affairs; Regional Development, North West and Gascoyne
Hon. N. Griffiths MLC	Deputy Leader of the Opposition in the Legislative Council; Attorney-General
M. Anwyl MLA	Family and Children's Services, Youth; Volunteer Services
C. Brown MLA	Commerce and Trade; Tourism; Small Business
A. Carpenter MLA	Disability Services; Sport and Recreation
Hon. K. Chance MLC	Primary Industries; Fisheries; Midwest and Wheatbelt
Hon. J. Cowdell MLC	Parliamentary and Electoral Affairs; South West
T. Cunningham MLA	Opposition Whip in the Legislative Assembly
Hon. C. Davenport MLC	Women's Interests; Seniors
Hon. E. Dermer MLC	Communications and Information Technology
Dr. J. Edwards MLA	Environment; Planning; Urban Affairs
Hon. Julian Grill MLA	Resources Development
Hon. S.J. Halden MLC	Finance
Hon. T. Helm MLC	Works and Services
J. Kobelke MLA	Labour Relations; Employment and Training; Freedon of Information
J. McGinty MLA	Health
M. McGowan MLA	Local Government
S. McHale MLA	Arts; Heritage
A. MacTiernan MLA	Transport; Fair Trading
N. Marlborough MLA	Housing
Hon M. Nevill MLC	Mines; Lands; Goldfields

3.5 – SHADOW MINISTRY, JANUARY 1997 Continued

Shadow Minister	*Title of Office*
F. Riebeling MLA	Justice
M. Roberts MLA	Parliamentary Secretary to Caucus; Opposition Leader of House Business; Police; Emergency Services
B. Thomas MLA	Energy; Higher Education; Science and Technology
Hon. B. Thomas MLC	Opposition Whip in the Legislative Council; Great Southern
D. Warnock MLA	President of the State Parliamentary Labor Party; Racing and Gaming; Multicultural and Ethnic Affairs

Source: Parliament House of Western Australia.

The Local Government System

Contributed by the Department of Local Government

The State of Western Australia is divided into 142 separate local government districts. Each local government contains a governing council that consists of members elected by the local community and is responsible for the provision of many of the services necessary for the organisation and welfare of the community which it represents.

The *Local Government Act 1995* provides for a system of local government in Western Australia. It does this by:

- providing for the constitution of elected local governments in the State;
- describing the function of local governments;
- providing for the conduct of elections and other polls; and
- providing a framework for the administration and financial management of local governments, and for the scrutiny of their affairs.

The Act is intended to result in:

- better decision making by local governments,
- greater community participation in the decisions and affairs of local governments,
- greater accountability of local governments to their communities, and
- more efficient and effective local governments.

Local Government Districts

The Local Government Act 1995 establishes a Local Government Advisory Board of five members who are appointed by the Governor.

Proposals about creating, changing the boundaries of and abolishing districts may be made to the Board by:

- the Minister,
- an affected local government,
- two or more affected local governments jointly, or
- affected electors who are at least 250 in number or 10% of the total number of affected electors.

The Advisory Board is to consider any proposal and make recommendations to the Minister. This may include consideration of whether, as a consequence of any recommendation, the making of an order to implement change to a relevant district is, or may be, necessary.

The Minister may require a poll of electors directly affected by a recommendation in order to assist in deciding whether or not to accept the recommendation of the Advisory Board. Electors may also demand a poll where the Advisory Board recommends the making of an order to abolish two or more districts and amalgamate them into one or more districts.

The Minister may accept or reject a recommendation of the Advisory Board. If, however, a poll is demanded by electors as a result of a proposed amalgamation, the Minister is to reject the amalgamation, providing at least 50% of electors of one of the districts vote and the majority of those voting electors oppose the recommendation.

Proposals for internal boundary changes within a district, called wards, may be made by affected electors. A local government may, whether or not it has received a proposal, carry out a review and make proposals to the Advisory Board or the Minister.

The Governor, on the recommendation of the Minister, may make orders regarding the declaration of an area to be a district, challenging the boundaries of a district, abolishing a district, and in relation to wards. Orders relating to districts are to include designation of the district as a city, town or shire. A district can be designated a city if the district is in the metropolitan area and has more than 30,000 inhabitants more than half of whom live in an urban area, or if the district is not in the metropolitan area and has more than 20,000 inhabitants, more than half of whom live in an urban area. For a district to be designated a town, more than half of its inhabitants must live in an urban area. A district that is not designated a city or a town is to be designated a shire. There are now 19 cities, 13 towns and 110 shires in Western Australia.

Constitution and Electoral Provisions

Under the *Local Government Act 1995*, local governments are established to cover local areas called districts. The local government has a body corporate with perpetual succession and a common seal. The local government has the legal capacity of a natural person and its corporate name is the combination of the district's designation and name.

Each local government is to have an elected council as its governing body. The offices on the council of a local government for a city or town are those of the mayor, the deputy mayor and the councillors, and for a shire are those of president, deputy president and councillors.

The Governor may, by order, appoint a person to be the commissioner of a local government until the offices of the council are filled for the first time, or if a council has been suspended or dismissed.

The Act provides minimum and maximum numbers for the size of council. If the method of filling the office of mayor or president is election by electors, the council is to consist of the mayor or president and not less than five nor more than 14 councillors, one of whom is to hold the office of deputy mayor or deputy president in conjunction with his or her office as a councillor. If the method is election by the council, council is to consist of not less than six nor more than 15 councillors, one of whom is to hold the office of mayor or president as well as councillor, and another the office of deputy mayor or deputy president as well as the office of councillor. The Governor, on the recommendation of the Minister, may make orders regarding the size of a council.

Provision is made for local government ordinary elections to be held usually on the first Saturday in May every two years. If the Electoral Commissioner is of the opinion that it would not be in the public interest to hold the ordinary elections on that day, the Electoral Commissioner may, by notice in the Gazette, fix another Saturday in May to be the day for holding any polls needed for those ordinary elections.

A person can only be a candidate for an election if the person was an elector of the district as at the close of enrolments. All people enrolled to vote for the Legislative Assembly will be enrolled to vote at local government elections. These people will comprise the residents' roll which is prepared by the Electoral Commissioner. Non-resident owners and occupiers of property may also make an enrolment claim if they are Australian citizens. Owners and occupiers will be required to apply to a local government's Chief Executive Officer (CEO) to be placed on the non-residents' roll. The CEO will consider such applications and has the power to reject them. However, a person who is dissatisfied with the CEO's decision may appeal to the Electoral Commissioner for a ruling. Enrolment on the non-residents' roll will last for two ordinary elections. During this period, the local government's CEO will have the power to decide whether the person is still eligible to remain enrolled. Following the completion of this period, the owner or occupier will be required to apply for enrolment again. This will assist local government to maintain a more accurate non-residents' roll, particularly in relation to occupiers. Subject to disqualification on certain specified grounds, all electors are eligible for election to the council of the district, whether as mayor, president or councillor.

The first past the post system of voting is used and there are provisions for postal voting. Voting is not compulsory. The CEO of a local government is to be the returning officer unless other arrangements are made by the local government, with the approval of the Electoral Commissioner, for another person or the Electoral Commissioner to be responsible for the conduct of the election.

Councillors are elected for a term of four years with one half of their number retiring every two years.

Functions of Local Governments

The Local Government Act 1995 gives local governments general powers to do things for their communities. The general function of a local government is to provide for the good government of persons in its district. While a liberal approach is to be taken in the construction of the general function, it is not unlimited; what can be done for the good government of persons in the district must be construed in the context of the functions of a local government elsewhere in the *Local Government Act* and in other written laws and any constraints imposed on those functions. Local governments have functions and responsibilities under a range of other legislation as well as the *Local Government Act 1995*.

In performing the general function, a local government can make local laws (legislative functions) and provide services and facilities (executive functions). Some of the more important are those relating to hospitals and nursing services, kindergartens, hostels for school children, community centres, dental clinics, infant and maternal health centres, day nurseries, control of dogs, jetties, swimming pools, sanitation and disposal of refuse, fire prevention, eradication of noxious weeds and vermin, aerodromes, abattoirs, quarries, pounds and cemeteries. Under the provisions of the *Health Act* local authorities are responsible for certain aspects of health administration.

Financial Provisions

Local governments may receive revenue and income from rates, service charges, fees and charges, borrowings, investments and from dealings in property and gifts, but not from any other source unless authorised by or under the *Local Government Act 1995* or any other written law.

Local governments also receive grants from the Local Government Grants Commission. The Commission allocates Commonwealth financial assistance grants to all local governments in the State. The grants comprise an equalisation component and a local roads component. The purpose of the equalisation component is to ensure every local government in the state has the ability to function, by reasonable effort, at a standard not lower than the average standard of other local governments in the State.

Allocation of road funds is done in accordance with established principles and includes provision for special projects, roads servicing, aboriginal communities, bridge works and local road maintenance and reconstruction. In 1996–97, the Grants Commission allocated $137.5 million in grants to local governments.

Not later than 31 August in each financial year, a local government is to prepare and adopt a budget for its municipal fund for the financial year ending on the next following 30 June. The budget must have regard to:

- the principal activities plan for the local government and include a detailed estimate of the expenditure for the current year by the local government;
- the revenue and income, independent of general rates, of the local government; and
- the amount required to make up the deficiency, if any, shown by comparing the estimated expenditure with the estimated revenue and income.

A local government is to impose a general rate on rateable land within its district, either uniformly or differentially; it may impose a specified area rate or a minimum payment and may impose a service charge. Before imposing a differential rate or a minimum payment applying to a differential rate category, a local government is to give local public notice of its intention to do so. Service charges may only be imposed for the provision of television and radio rebroadcasting, volunteer bush fire brigades and underground electricity.

Rates are based on property values. In assessing the value of rateable property, every local government must adopt valuations made by the Valuer General under the provisions of the *Valuation of Land Act 1978*. *The Land Valuation Tribunals Act 1978* provides for the constitution of Land Valuation Tribunals, to which appeals may be made on matters concerning valuation of property. Valuations may be on the basis of either 'unimproved value' or 'gross rental value'. The unimproved value generally represents the price which the rated land might be expected to realise if sold on the open market and, as the name implies, excludes any improvements. The gross rental value is an estimate of the gross rental value of the property including improvements. The Minister for Local Government determines the method of valuation of land to be used by a local government as the basis for a rate and, in doing so, has regard to the general principle that the basis for a rate on any land is the unimproved value, where the land is used predominantly for rural purposes, and the gross rental value, where the land is used predominantly for non-rural purposes.

Fees and charges may be imposed for:

- providing the use of, or allowing admission to, any property or facility wholly or partly owned, controlled, managed or maintained by the local government;
- supplying a service or carrying out work at the request of a person;
- providing certain information from local government records, receiving an application for approval, granting an approval, making an inspection and issuing a licence, permit, authorisation or certificate; and
- supplying goods.

In determining the amount of a fee or charge a local government is required to take into consideration:

- the cost to the local government of providing the service or good;
- the importance of the service or good to the community; and
- the price at which the service or good could be provided by an alternative provider.

Local governments are required to prepare an annual financial report for the preceding financial year as well as monthly and quarterly financial reports. The annual financial report forms part of the local government's annual report. The accounts and annual financial report of a local government are required to be audited by an auditor appointed by the local government.

Principal Activities, Planning and Annual Reports

Each financial year, a local government is to prepare a plan for the next four or more financial years. The plan is to contain:

- details of the principal activities that are proposed to be commenced or continued in each financial year affected by the plan;
- the objectives of each principal activity;
- the estimated cost of and proposed means of funding each principal activity;
- how the local government proposes to assess its performance in relation to each principal activity; and
- the estimated income and expenditure for each financial year affected by the plan.

CITY OF PERTH

Contributed by City of Perth

Estimated Resident Population at 30 June 1995:	**5,200 people**
City retail outlets:	**Approx. 1,200 shops in the city's tourism precinct**
Physical area:	**875 hectares**
Major activities in the CBD:	**A variety of business, retail, embassies and diplomatic representation, the centre of State government and expanding inner city living**
Closest major cities to Perth:	**Adelaide, South Australia 1,316 km** **Denpasar, Indonesia 1,306 km**

Set on the banks of the Swan River, with majestic Kings Park, and flanked by the Stirling Ranges – Perth is being discovered by more and more people. Perth has been blessed with a stunning physical environment which forms the basis of the 'Perth lifestyle' and is an idyllic location for business as a gateway into Asia and the Indian Ocean region.

A capital city authority

The City of Perth has a unique role as the capital of Western Australia. Unlike residential based Councils, over 90% of the City's rates base is commercial with about 7% residential and the remainder industrial.

There are many stakeholders who use the capital city. Apart from ratepayers, the City of Perth must also cater for shoppers, tourists and thousands of city workers.

These various interests mean that although the City still functions as a 'normal' municipality with responsibility for roads, rates, rubbish, drainage and some community services, the City also develops investment opportunities, has a special interest in environment, develops residential infrastructure and actively promotes and facilitates tourism and retail growth.

History

Perth was founded in 1829. Local government in Western Australia began in 1838 as a 'Town Trust', later becoming Perth City Council in 1858. G. Shenton was appointed as the first Mayor in 1880; prior to that there had been a number of chairmen of the Town Trust.

Today the Council of the City of Perth is made up of eight Councillors and the Lord Mayor. A full Council meeting is held every fortnight in Council Chambers located on the seventh floor, Westralia Square, 141 St George's Terrace, Perth.

The City of Perth today...

Today Perth is a cosmopolitan and thriving city. The City of Perth has been busy with all manner of initiatives such as alfresco dining, markets, urban parks, street theatre, free concerts and interactive public art works.

The City works on a variety of projects aimed at improving the amenity of the city for all. 'Perth – A City for People' is a project, in partnership between the City of Perth and the State Government, aimed at rejuvenating the city within a ten year time frame.

The City of Perth has been revamping the 'internals' of the City. Five strategies have been developed under the 'Perth – A City For People' umbrella focussing on landscaping, paving, public art, street furniture and lighting. These strategies will form the basis of a radical coordinated approach to the 'interior design' of the city.

Another joint project is the Children's Strategy. The city is not just for 'grown-ups'. Children, an important part of the community, are often left out of public life. Infrastructure and facilities will be developed, and awareness increased, to cater for the specific needs of children who have often been left out of the life of the city.

Considerable work has also gone into inner city living. The City of Perth is committed to attracting more people back into the city, in the belief that people and their vitality form the heart of any place.

In the last five years there has been a large increase of stylish town houses, studio apartments, houses and villas in Perth. Creative planning is found in many forms – one particularly successful idea has been the conversion of a former Council depot into a fashionable estate with distinctive lighting, paving, townhouses and views of the Perth skyline.

A conservation and feasibility study has been undertaken for the future of the Perth Town Hall. The Council of the City of Perth is keen to see the Town Hall restored as a landmark location in Perth. Over the years, the Town Hall has been used for many varied purposes including sporting events, exhibitions, flower shows and for political functions.

Members of the public often associate the City of Perth with marketing and promotional activities including the 'See You In The City' campaign, free concerts in Forrest Place, parades, school holiday entertainment and Skyworks.

The City of Perth has also worked with Police to establish a surveillance system which has won national acclaim. The closed circuit television system has assisted with collapsed and missing people and functions as a deterrent at potential crime scenes. It also assists in apprehending offenders.

The City of Perth is committed to growth in vitality, diversity and opportunities. Perth is in a unique position and has a very special role to play as a city abounding in potential and natural assets. The City of Perth is committed to Perth becoming a city of regional and international significance.

It is also required to give local public notice of the plan, make copies available and invite submissions from the public.

For the purposes of the principal activities plan, a principal activity includes:

- a major capital works project to be undertaken by the local government;
- a major service to be provided by the local government;
- a program for the replacement of the local government's major assets; and
- major land transactions and major trading undertakings.

Major land transactions and major trading undertakings are commercial enterprises under the provisions of the Act, and for each of these a local government is required to prepare a business plan, give Statewide public notice of the plan and invite public submissions.

Each financial year a local government is also to prepare an annual report. This is to include a report on the principal activities commenced or continued during the financial year, an assessment of the local government's performance in relation to each principal activity, and an overview of the principal activities that the local government proposes to commence or continue in the next financial year.

Community Participation

Participation by the public in the decision making and affairs of local government is provided for in a number of ways in the Act, in addition to the provisions for the giving of Statewide and local public notice. All council meetings, and meetings of committees to which a power or duty has been delegated, must be open to the public, although some meetings or parts of meetings may be closed to the public in certain circumstances. There must also be a public question time of at least 15 minutes at such meetings, preceding discussion of other matters. The public has access to agendas and to unconfirmed minutes, unless the meeting or part of the meeting to which the information refers was closed to members of the public or, in the CEO's opinion, could have been closed to the public. The public also has access to a range of local government documents unless provisions limit access to certain kinds of information.

Population

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POPULATION

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Chapter 4

POPULATION

Population Profile

Estimated Resident Population

The estimated resident population of Western Australia at 30 June 1995 was 1,731,160, an increase of 1.8% over the previous year. The increase was above the national average of 1.2%. Queensland (2.5%) was the only State or Territory to record a higher growth rate than Western Australia for the same period.

The Western Australian increase of 30,096 persons comprised 14,666 from natural increase, 10,508 from overseas migration and 4,922 from interstate migration.

The Western Australian population makes up approximately 10% of the total Australian population. While males continue to make up a higher proportion of the population, the sex ratio has been declining since 1971. There were 104.8 males per 100 females in 1971 compared with 100.9 in 1995.

4.1 – ESTIMATED RESIDENT POPULATION

Year ended 30 June	Western Australia	Australia	Western Australia		
			Proportion of Australia	Sex ratio(a)	Annual growth rate
	Persons	Persons	%		%
1971(b)	1 053 834	13 067 265	8.06	104.83	(b)
1976	1 178 342	14 033 083	8.40	103.73	2.26
1981	1 300 056	14 923 260	8.71	102.25	1.99
1986	1 459 019	16 018 350	9.11	101.83	2.33
1991	1 636 067	17 284 036	9.47	101.20	1.43
1992	1 657 350	17 489 072	9.48	101.09	1.30
1993	1 676 341	17 656 427	9.49	101.02	1.15
1994	1 701 064	17 838 401	9.54	100.97	1.47
1995	1 731 160	18 053 989	9.59	100.91	1.77

(a) Number of males per 100 females.
(b) Resident Population not calculated prior to 1971.
References: Catalogue Nos. 3101.0, 3201.0, 3203.5

Preliminary estimates of the Western Australian population by sex and age show the population is continuing to age. The median age, the age at which half the population is older and half is younger, was 32.9 years as at 30 June 1995. This represents an increase of 6.1 years in the last 20 years, 3.1 years in the last 10 years and 0.3 years since June 1994. At 30 June 1995, the median age of females was 33.4 years compared with 32.4 years for males.

As at 30 June 1995, 10.4% of the estimated resident population were aged 65 years or over and 22.3% were 14 years or younger, compared with 9.0% and 24.5% respectively as at June 1985.

In Australia, females have a longer life expectancy than males. In 1994, the life expectancy at birth of females in Western Australia was 81.2 years compared with 75.6 years for males. At June 1995, females constituted 50.7% of all persons aged 65–69 years and 68.4% of those aged 85 years or more.

4.2 – ESTIMATED RESIDENT POPULATION BY AGE GROUPS (a)

Age group (years)	*Males*	*Females*	*Persons*	*Males*	*Females*	*Persons*
	No.	No.	No.	%	%	%
0–4	64 111	60 849	124 960	7.4	7.1	7.2
5–9	67 451	63 543	130 994	7.8	7.4	7.6
10–14	67 407	63 356	130 763	7.8	7.4	7.6
15–19	65 026	61 696	126 722	7.5	7.2	7.3
20–24	70 701	68 076	138 777	8.1	7.9	8.0
25–29	67 086	65 440	132 526	7.7	7.6	7.7
30–34	70 151	70 347	140 498	8.1	8.2	8.1
35–39	70 208	70 034	140 242	8.1	8.1	8.1
40–44	67 049	66 730	133 779	7.7	7.7	7.7
45–49	63 506	59 620	123 126	7.3	6.9	7.1
50–54	47 610	44 100	91 710	5.5	5.1	5.3
55–59	38 270	36 600	74 870	4.4	4.2	4.3
60–64	31 717	31 090	62 807	3.6	3.6	3.6
65–69	28 978	29 859	58 837	3.3	3.5	3.4
70–74	22 504	25 868	48 372	2.6	3.0	2.8
75–79	13 792	18 829	32 621	1.6	2.2	1.9
80–84	8 739	14 342	23 081	1.0	1.7	1.3
85 and over	5 208	11 267	16 475	0.6	1.3	1.0
Total	**869 514**	**861 646**	**1 731 160**	**100.0**	**100.0**	**100.0**

(a) Preliminary at 30 June 1995.
Reference: Catalogue No. 3101.0

4.3 – ESTIMATED RESIDENT POPULATION: STATISTICAL LOCAL AREAS (SLAs) (a)

Statistical Local Area (b)	*1994*	*1995*	*Population change*	*% change*
	PERTH STATISTICAL DIVISION			
Perth (C) - Inner	689	750	61	8.85
Rockingham (C)	53 767	57 536	3 769	7.01
Serpentine-Jarrahdale (S)	9 188	9 668	480	5.22
Swan (S)	64 277	67 310	3 033	4.72
Wanneroo (C)	197 040	205 314	8 274	4.20
Cockburn (C)	55 219	57 352	2 133	3.86
Fremantle (C) - Inner	1 170	1 209	39	3.33
Kwinana (T)	19 311	19 926	615	3.18
Perth (C) - Remainder	4 333	4 457	124	2.86
Cambridge (T)	23 468	23 963	495	2.11
Fremantle (C) - Remainder	22 859	23 255	396	1.73
Gosnells (C)	73 151	74 404	1 253	1.71
Mundaring (S)	32 032	32 576	544	1.70
Claremont (T)	9 321	9 444	123	1.32
Armadale (C)	51 126	51 731	605	1.18
Nedlands (C)	20 588	20 817	229	1.11
Bassendean (T)	13 904	13 992	88	0.63
Canning (C)	70 602	71 022	420	0.59
Stirling (C) - Central	103 375	103 809	434	0.42
Stirling (C) - South-Eastern	20 654	20 731	77	0.37
Vincent (T)	25 142	25 235	93	0.37
Victoria Park (T)	25 353	25 436	83	0.33
Stirling (C) - West	55 034	55 105	71	0.13
Mosman Park (T)	7 721	7 730	9	0.12
Kalamunda (S)	48 206	48 251	45	0.09
Subiaco (C)	15 011	15 016	5	0.03
Belmont (C)	27 030	27 024	-6	-0.02
South Perth (C)	35 394	35 382	-12	0.03
Peppermint Grove (S)	1 546	1 545	-1	-0.06
Bayswater (C)	46 164	46 132	-32	-0.07
Melville (C)	92 244	92 163	-81	-0.09
East Fremantle (T)	6 416	6 403	-13	-0.20
Cottesloe (T)	7 507	7 466	-41	-0.55
Total Perth Statistical Division	*1 238 842*	*1 262 154*	*23 312*	*1.88*
	REMAINDER OF STATE			
Busselton (S)	16 373	17 448	1 075	6.57
Greenough (S)	9 994	10 555	561	5.61
Mandurah (C)	35 639	37 635	1 996	5.60
Toodyay (S)	3 000	3 164	164	5.47
Menzies (S)	230	242	12	5.22
Broome (S)	8 356	8 776	420	5.03
Denmark (S)	3 716	3 897	181	4.87
Gingin (S)	3 246	3 397	151	4.65
Dardanup (S)	6 181	6 466	285	4.61
Halls Creek (S)	2 726	2 847	121	4.44
Northam (S)	3 199	3 337	138	4.31
York (S)	2 794	2 889	95	3.40
Kalgoorlie/Boulder (C)	28 154	29 110	956	3.40
Chittering (S)	2 403	2 484	81	3.37
Murchison (S)	129	133	4	3.10
Capel (S)	6 007	6 185	178	2.96

4.3 – ESTIMATED RESIDENT POPULATION: STATISTICAL LOCAL AREAS (SLAs) (continued)

Statistical Local Area	1994	1995	Population change	% change
Murray (S)	9 423	9 702	279	2.96
Augusta-Margaret River (S)	7 141	7 352	211	2.95
Ngaanyatjarraku (S)	1 235	1 271	36	2.91
Harvey (S)	14 610	15 035	425	2.91
Wyndham-East Kimberley (S)	6 098	6 273	175	2.87
Wiluna (S)	406	417	11	2.71
Upper Gascoyne (S)	262	269	7	2.67
Waroona (S)	3 226	3 303	77	2.39
Esperance (S)	11 651	11 928	277	2.38
Albany (S)	12 185	12 470	285	2.34
Tammin (S)	448	458	10	2.23
Shark Bay (S)	869	888	19	2.19
Irwin (S)	2 451	2 503	52	2.12
Chapman Valley (S)	842	857	15	1.78
Donnybrook-Balingup (S)	4 298	4 367	69	1.61
Albany (T)	15 713	15 937	224	1.43
Exmouth (S)	2 418	2 449	31	1.28
Ashburton (S)	7 304	7 395	91	1.25
Cuballing (S)	828	838	10	1.21
Plantagenet (S)	4 434	4 487	53	1.20
Bunbury (C)	27 917	28 232	315	1.13
Boddington (S)	1 440	1 454	14	0.97
Victoria Plains (S)	1 021	1 029	8	0.78
Derby-West Kimberley (S)	7 012	7 064	52	0.74
Bridgetown-Greenbushes (S)	4 178	4 204	26	0.62
Carnarvon (S)	6 577	6 604	27	0.41
Nannup (S)	1 195	1 199	4	0.33
Leonora (S)	2 678	2 684	6	0.22
Yilgarn (S)	2 246	2 250	4	0.18
Geraldton (C)	21 451	21 467	16	0.07
Mount Magnet (S)	1 173	1 173	0	0.00
Ravensthorpe (S)	1 414	1 414	0	0.00
Sandstone (S)	256	256	0	0.00
Yalgoo (S)	415	415	0	0.00
Meekatharra (S)	1 909	1 907	-2	-0.10
Manjimup (S)	10 263	10 241	-22	-0.21
Broomehill (S)	540	537	-3	-0.56
Northampton (S)	3 022	3 004	18	-0.60
Coolgardie (S)	5 673	5 639	-34	-0.60
Beverley (S)	1 482	1 473	-9	-0.61
Koorda (S)	584	580	4	0.68
Jerramungup (S)	1 372	1 362	-10	-0.73
Woodanilling (S)	409	406	-3	-0.73
Bruce Rock (S)	1 279	1 269	-10	-0.78
Roebourne (S)	14 835	14 718	-117	-0.79
Goomalling (S)	1 094	1 085	-9	-0.82
Moora (S)	2 780	2 755	-25	-0.90
Cue (S)	641	635	-6	-0.94
Narrogin (S)	873	864	-9	-1.03
Dandaragan (S)	2 398	2 373	-25	-1.04
Westonia (S)	285	282	-3	-1.05
Dumbleyung (S)	852	843	-9	-1.06
Three Springs (S)	844	835	-9	-1.07
Kojonup (S)	2 313	2 288	-25	-1.08
Dundas (S)	1 628	1 609	-19	-1.17

4.3 – ESTIMATED RESIDENT POPULATION: STATISTICAL LOCAL AREAS (SLAs) (continued)

Statistical Local Area	*1994*	*1995*	*Population change*	*% change*
Kondinin (S)	1 104	1 091	-13	-1.18
Quairading (S)	1 169	1 155	-14	-1.20
Dalwallinu (S)	1 739	1 718	-21	-1.21
Port Hedland (T)	11 889	11 744	-145	-1.22
Narrogin (T)	4 827	4 768	-59	-1.22
Mingenew (S)	638	630	-8	-1.25
Wyalkatchem (S)	638	630	-8	-1.25
Trayning (S)	504	497	-7	-1.39
Northam (T)	6 704	6 608	-96	-1.43
Kent (S)	832	820	-12	-1.44
Pingelly (S)	1 212	1 193	-19	-1.57
Narembeen (S)	1 018	999	-19	-1.87
Katanning (S)	4 754	4 665	-89	-1.87
Boyup Brook (S)	1 756	1 723	-33	-1.88
Cunderdin (S)	1 476	1 448	-28	-1.90
Kulin (S)	1 070	1 049	-21	-1.96
Tambellup (S)	725	710	-15	-2.07
Gnowangerup (S)	1 817	1 778	-39	-2.15
Wagin (S)	1 986	1 942	-44	-2.22
Mullewa (S)	1 373	1 341	-32	-2.33
Wongan-Ballidu (S)	1 688	1 648	-40	-2.37
Coorow (S)	1 515	1 478	-37	-2.44
Kellerberrin (S)	1 309	1 277	-32	-2.44
Merredin (S)	3 827	3 728	-99	-2.59
Morawa (S)	1 019	991	-28	-2.75
West Arthur (S)	1 004	976	-28	-2.79
Williams (S)	1 021	992	-29	-2.84
Cranbrook (S)	1 193	1 159	-34	-2.85
Lake Grace (S)	1 800	1 748	-52	-2.89
Corrigin (S)	1 377	1 337	-40	-2.90
Collie (S)	9 441	9 166	-275	-2.91
Dowerin (S)	887	861	-26	-2.93
Mukinbudin (S)	677	657	-20	-2.95
Wandering (S)	398	386	-12	-3.02
Wickepin (S)	897	869	-28	-3.12
Mount Marshall (S)	727	702	-25	-3.44
Perenjori (S)	754	728	26	-3.45
East Pilbara (S)	9 431	9 089	-342	-3.63
Brookton (S)	1 016	979	-37	-3.64
Carnamah (S)	1 046	1 003	-43	-4.11
Nungarin (S)	314	295	-19	-6.05
Laverton (S)	1 612	1 514	-98	-6.08
Total Remainder of State	*462 222*	*469 006*	*6 784*	*1.47*
Total Western Australia	**1 701 064**	**1 731 160**	**30 096**	**1.77**

(a) Statistics in this table are as at year ended 30 June.
(b) The names and designations of SLAs are as they existed at 30 June 1995. The Cities of Fremantle, Perth and Stirling are comprised of a number of Statistical Local Areas. Statistical Local Areas are marked (C) for City, (T) for Town or (S) for Shire.

Reference: Catalogue No. 3203.5

Population in Statistical Local Areas (SLAs)

The proportion of the State population residing in the Perth Statistical Division was 73% at 30 June 1995. This figure has fluctuated by less than 1% since 1986 and has risen slowly from 68% in 1971.

The population of Perth Statistical Division increased 1.9% in the 12 months to June 1995. Perth Inner City (8.9%) and Rockingham (7.0%) recorded the highest growth rates for the Division. Wanneroo was the most populated SLA and made up 16% of the Perth Statistical Division.

The population of the remainder of the State increased by 1.5% in the 12 months to June 1995. The SLAs which recorded the highest percentage increases were Busselton (6.6%), Greenough (5.6%), Mandurah (5.6%) and Toodyay (5.5%). Mandurah (37,635 persons) was the most populated SLA outside the Perth Statistical Division.

Religion and Birthplace

The 1996 Western Australian Year Book (Cat. No. 1300.5) pages 64–65, contains information on religion and birthplace of the State population based on the 1991 Census of Population and Housing.

Aboriginal and Torres Strait Islander People

For information on this topic see Chapter 21 of this publication. The 1996 Western Australian Year Book (Cat. No. 1300.5) page 66, outlines information on the Indigenous population taken from the 1991 Census of Population and Housing.

Vital Statistics

Registration

Registration of births, deaths and marriages in Western Australia is compulsory. Local registers are kept at each district office. Particulars reported to District Registrars are sent to the Registrar General at Perth, where a central registry is maintained.

Births are required to be registered within 60 days of the event, and a fetal death (stillbirth) must be registered both as a birth and a death. Deaths are required to be registered within 14 days. Marriage certificates must be lodged for registration within 14 days of the date of marriage. Statistics of births, deaths and marriages are prepared from the registration documents.

Births

Since 1988 the number of births registered in Western Australia has remained relatively static at around 25,000 births per year. In 1995 there were 25,139 births registered to mothers usually resident in Western Australia, only one more than in 1994. The crude birth rate, ie the nimber of live births registered during the calendar year per 1,000 Estimated Resident Population, continued to fall. In 1995 the rate was 14.5 compared with 23.0 in 1971.

4.4 – BIRTHS REGISTERED BY AGE OF MOTHER (a)

Age of mother (years)	*1993*	*1994*	*1995*
	TOTAL BIRTHS (b)		
Under 20	1 451	1 533	1 504
20–24	5 005	4 974	4 886
25–29	8 494	8 405	8 172
30–34	7 300	7 230	7 365
35–39	2 444	2 582	2 790
40–44	349	395	407
45 and over	8	15	15
Not stated	30	4	0
Total	**25 081**	**25 138**	**25 139**
Males	12 925	12 867	12 942
Females	12 156	12 271	12 197
Sex ratio (c)	106.3	104.9	106.1
Crude birth rate (d)	15.0	14.8	14.5
	EX-NUPTIAL BIRTHS		
Under 20	1 322	1 395	1 380
20–24	2 440	2 542	2 581
25–29	1 668	1 680	1 790
30–34	1 041	1 073	1 115
35–39	411	440	519
40–44	80	83	87
45 and over	3	3	3
Not stated	26	4	0
Total	**6 991**	**7 220**	**7 475**

(a) Figures relate to State of usual residence of mother.
(b) Includes ex-nuptial births.
(c) Number of male live births per 100 female live births.
(d) Number of live births registered during the calendar year per 1,000 of mean population.
Reference: Unpublished table: BTHR0007

Ex-nuptial Births

A birth is registered as ex-nuptial if the parents are not married to each other at the time of the confinement.

The proportion of ex-nuptial births to total births has increased from 28% in 1993 to 30% in 1995. In 1995, mothers under the age of 25 years accounted for 53% of ex-nuptial births and 25% of total births. For mothers aged less than 20 years, 92% of births were ex-nuptial.

4.5 – BIRTHS, 1995

	Western Australia	*Australia*
Number of births—		
Nuptial	17 664	188 140
Ex-nuptial	7 475	68 050
Total	*25 139*	*256 190*
Crude birth rate (a)	14.5	14.2
Age-specific birth rate (b)—		
15–19	24.4	20.5
20–24	71.7	66.7
25–29	124.8	121.6
30–34	104.7	106.1
35–39	39.8	42.5
40–44	6.1	7.2
45–49	0.3	0.3
Total fertility rate (c)	1.9	1.8

(a) Per 1,000 mean resident population.
(b) Live births per 1,000 women in each age group. Births to mothers under 15 are included in the 15-19 age group, and births to mothers aged 50 and over are included in the 45-49 age group.
(c) Total fertility rate represents the number of children a woman would bear during her lifetime if she experienced current age-specific fertility rates at each age of her reproductive life.

Reference: Catalogue No. 3301.0

Deaths

In comparison with other countries, Australia ranks amongst those with the lowest mortality rates and highest expectations of life.

For Western Australia, the number of deaths was 10,364 in 1995 representing 8% of the total deaths in Australia. The crude death rate of 6.0 deaths per thousand population was lower than the Australian rate of 6.9 deaths.

The infant death rate was 5.1 deaths per 1,000 live births in 1995, a decrease over the 1994 rate of 5.6 deaths. The 1995 rate was also lower than the national rate of 5.7 deaths per 1,000 live births.

4.6 – DEATHS, 1995

	Western Australia(a)	Australia(b)
Number of deaths	10 364	125 124
Crude death rate (c)	6.0	6.9
Infant death rate (d)	5.1	5.7
Age-specific death rate (years) (e)—		
Males —		
Under 1 year	6.1	6.1
1–9	0.3	0.3
10–19	0.4	0.5
20–29	1.4	1.2
30–39	1.5	1.5
40–49	2.1	2.3
50–59	5.2	5.8
60–69	16.9	17.8
70–79	44.1	45.2
80 and over	122.2	126.8
Females—		
Under 1 year	4.1	5.1
1–9	0.2	0.2
10–19	0.3	0.3
20–29	0.4	0.4
30–39	0.5	0.6
40–49	1.4	1.4
50–59	3.3	3.5
60–69	8.4	9.6
70–79	25.3	26.1
80 and over	94.5	98.8

(a) Excludes other territories including Christmas Island and the Cocos (Keeling) Islands.
(b) Excludes other territories including Christmas Island and the Cocos (Keeling) Islands and Jervis Bay Territory.
(c) Per 1,000 mean resident population.
(d) Infant deaths per 1,000 live births.
(e) Number of deaths per 1,000 persons in each age group. Excludes fetal deaths.
Reference: Catalogue No. 3302.0

Causes of Death

In 1995:

- 41% (4,240) of all deaths were caused by diseases of the circulatory system. Of these diseases, ischaemic heart disease accounted for 23% of all deaths and cerebrovascular disease accounted for 10%.
- 28% of deaths were from malignant neoplasms (cancers) of which cancer of the respiratory and intrathoracic organs was the major cause.
- other main causes of death were diseases of the respiratory system (8%), and accidents, poisonings and violence (7%).

4.7 – CAUSES OF DEATH, 1995 (a)

Cause of death (b)	Western Australia Persons	Western Australia % of all deaths	Western Australia Rate (c)	Australia Persons	Australia % of all deaths	Australia Rate (c)
Infectious and parasitic diseases (001-139)	92	0.9	5.3	1 069	0.9	5.9
Neoplasms (140-239)—						
Malignant (140-208)—						
Respiratory and intrathoracic organs (160-165)	641	6.2	37.0	7 193	5.7	39.8
Genitourinary organs (179-189)	458	4.4	26.4	5 667	4.5	31.4
Lymphatic and haematopoietic tissue (200-208)	254	2.4	14.7	3 273	2.6	18.1
Other	1 518	14.6	87.6	17 672	14.1	97.9
Benign, other and unspecified (210-239)	44	0.4	2.5	562	0.4	3.1
Endocrine, nutritional and metabolic diseases (240-279)	342	3.3	19.7	4 100	3.3	22.7
Diseases of blood and blood forming organs	22	0.2	1.3	348	0.3	1.9
Mental disorders (290-319)	293	2.8	16.9	3 178	2.5	17.6
Diseases of the nervous system and sense organs (320-389)	256	2.5	14.8	2978	2.4	16.5
Diseases of the circulatory system (390-459)						
Ischaemic heart disease (410-414)	2 420	23.4	139.7	29 609	23.7	164.0
Cerebrovascular disease (430-438)	997	9.6	57.6	12 680	10.1	70.2
Other	823	7.9	47.5	11 113	8.9	61.6
Diseases of the respiratory system (460-519)—						
Chronic obstructive pulmonary disease (490-496)	446	4.3	25.7	6 388	5.1	35.4
Other	327	3.2	18.9	3 043	2.4	16.9
Diseases of the digestive system (520-579)	341	3.3	19.7	3 871	3.1	21.4
Diseases of the genitourinary system (588-629)	128	1.2	7.4	2 073	1.7	11.5
Diseases of the skin and subcutaneous tissue (680-709)	26	0.2	1.5	250	0.2	1.4
Diseases of the musculoskeletal system and connective tissue (710-739)	64	0.6	3.7	734	0.6	4.1
Congenital anomalies (740-759)	54	0.5	3.1	678	0.5	3.8
Certain conditions originating in the perinatal period (760-779)	50	0.5	2.9	675	0.5	3.7
Symptoms, signs and ill-defined conditions (780-799)	38	0.4	2.2	533	0.4	3.0
Accidents, poisonings and violence (800-999)—						
Motor vehicle traffic accidents (810-819)	209	2.0	12.1	2 029	1.6	11.2
Suicide and self inflicted injury (950-959)	218	2.1	12.6	2 367	1.9	13.1
Other	303	2.9	17.5	3 041	2.4	16.8
All causes	**10 364**	**100.0**	**598.2**	**125 124**	**100.0**	**693.1**

(a) Based on State of usual residence. Fetal deaths are excluded.
(b) Classified in accordance with the International Classification of Diseases (Ninth revision, 1975), operative from 1 January 1979.
(c) Per 100,000 of mean resident population.
Reference: Catalogue No. 3303.0

Life Expectancy

For information on this topic see the 1996 Western Australian Year Book (Cat No. 1300.5) page 75.

Marriages

In 1995:

- there were 10,404 marriages registered, an increase of 38 (0.4%) on 1994,
- the crude marriage rate was 6.0 per 1,000 population, lower than the Australian rate of 6.1,
- the median age at marriage (the age at which there are as many marrying above the age as there are marrying below it) was 29.6 years for bridegrooms and 27.2 years for brides,
- 65% of marriages consisted of both partners marrying for the first time; 19% involved a remarriage for one partner and 16% were remarriages for both partners,
- 74% of bridegrooms had never been married before; 24% were divorced and 2% were widowed. For brides, 75% had never been married; 23% were divorced and 2% were widowed.

4.8 – MEDIAN AGE OF BRIDEGROOMS AND BRIDES (a)

Marital status	*1991*	*1992*	*1993*	*1994*	*1995*
			Years		
Bridegrooms—					
Never married	26.8	27.0	27.1	27.4	27.5
Widowed	62.8	59.4	59.8	62.2	62.7
Divorced	39.5	40.7	40.3	41.6	41.5
All bridegrooms	**28.6**	**29.1**	**29.3**	**29.5**	**29.6**
Brides—					
Never married	24.4	24.7	24.8	25.2	25.5
Widowed	52.0	52.6	52.0	53.7	52.2
Divorced	36.3	37.0	37.4	37.8	38.0
All brides	**26.1**	**26.5**	**26.5**	**26.9**	**27.2**

(a) The median age is that age which divides the reference population into two halves, one half being below the median age and one half above.

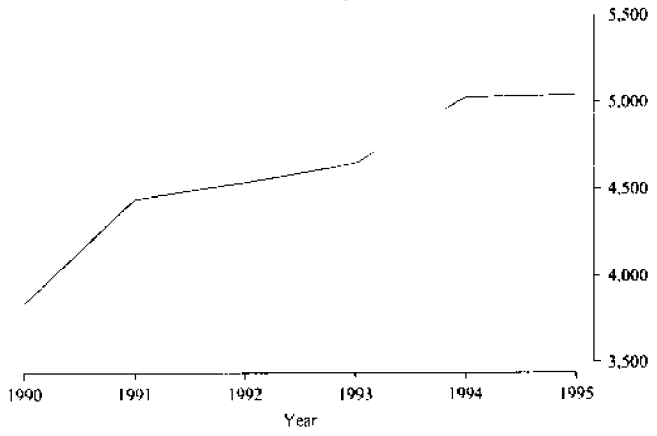
Reference: Catalogue No. 3310.0

Divorces

In 1995:

- there were 5,040 divorces, an increase of 16 (0.3%) on the number of divorces recorded in 1994,
- 40% of applications for divorce were filed by the wife, 30% by the husband and 30% were joint applications,
- the median age at time of divorce (the age at which there are as many divorcing above that age as there are divorcing below it) was 40.9 years for the husband and 38.0 years for the wife,
- the crude divorce rate was 2.9 decrees absolute granted per 1,000 of estimated population at 30 June, slightly higher than the figure of 2.8 for Australia,
- the median duration of marriage of those divorcing was 12.3 years compared with 11.0 years recorded for Australia,
- over 40% of divorces granted occurred within the first nine years of marriage.

DIAGRAM 4.1 – DIVORCES



Source: Catalogue No. 3311.5

4.9 – DIVORCES, 1995

Duration of marriage (Years)	Western Australia		Australia	
	Number	%	Number	%
Under 5	767	15.2	9 535	19.2
5–9	1 257	24.9	13 211	26.6
10–14	1 001	19.9	9 167	18.5
15–19	704	14.0	6 375	12.8
20–24	612	12.1	5 179	10.4
25–29	390	7.7	3 511	7.1
30 and over	309	6.1	2 688	5.4
Total (a)	**5 040**	**100.0**	**49 666**	**100.0**

(a) Includes duration of marriage not stated.
Reference: Unpublished table DIVR0013

Overseas Migration

Permanent movement deals with arrivals of:

- settlers (persons who hold migrant visas regardless of stated intended period of stay),
- New Zealand citizens who indicate an intention to settle, and
- those who are otherwise eligible to settle, for example, the overseas born children of Australian citizens.

Permanent movements also include the departures of Australian residents, including former settlers, who on departure state that they do not intend to return to Australia.

4.10 – PERMANENT DEPARTURES BY CATEGORY

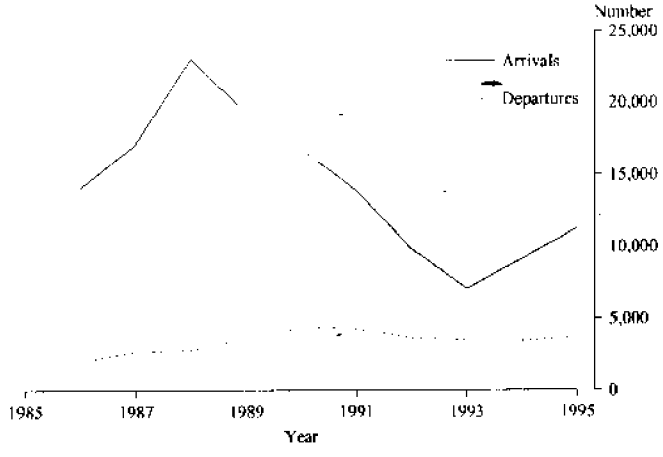
Period	Former settlers	Australian residents	Total
	ANNUAL AVERAGES		
1981–1985	1 970	1 010	2 980
1986–1990	1 854	1 286	3 140
1991–1995	2 069	1 656	3 725
	ANNUAL TOTALS		
1992	2 060	1 590	3 650
1993	1 900	1 600	3 500
1994	1 820	1 630	3 450
1995	1 900	1 830	3 730

Reference: Unpublished Table PMTR001

In 1995 there were 11,300 permanent settler arrivals to Western Australia, an increase of 2,170 (24%) compared with 1994. The number of permanent settler arrivals has continued to increase from the low of 7,030 recorded in 1993, but remains below the peak of 23,050 recorded in 1988.

The number of permanent departures increased slightly from 3,450 in 1994 to 3,730 in 1995. Just over half (51%) of those departing were former settler arrivals.

DIAGRAM 4.2 – TOTAL PERMANENT SETTLER ARRIVALS AND DEPARTURES



Source: Unpublished table PMTR 0018

The main countries of birth of permanent settlers were the United Kingdom and Ireland (3,190), followed by New Zealand (1,260) and South Africa (860). The United Kingdom and Ireland and New Zealand accounted for 39% of all permanent arrivals.

4.11 – PERMANENT (SETTLER) ARRIVALS BY SELECTED COUNTRY OF BIRTH, 1995 (a)

Country of birth	Western Australia	Australia
Oceania and Antarctica	*1 340*	*15 120*
New Zealand	1 260	11 430
Other	80	3 690
Europe and the former USSR	*4 690*	*26 740*
France	40	350
Germany	120	910
Italy	50	310
Netherlands	70	420
Poland	80	660
Romania	50	330
Switzerland	60	280
United Kingdom & Ireland	3 190	12 370
Former Yugoslav Republics	780	7 390
Other	250	3 720
Middle East and North Africa	*570*	*8 340*
Iraq	230	3 120
Other	340	5 220
Southeast Asia	*1 950*	*14 590*
Burma	350	580
Indonesia	420	1 530
Malaysia	240	1 110
Philippines	190	3 800
Singapore	280	750
Thailand	100	740
Viet Nam	330	4 630
Other	40	1 450
Northeast Asia	*550*	*14 250*
China	280	7 370
Hong Kong	160	4 490
Japan	50	580
Korea, South	20	580
Taiwan	40	1 140
Other		90
Southern Asia	*500*	*8 450*
India	340	4 300
Pakistan	30	630
Sri Lanka	100	2 110
Other	30	1 410
Northern America	*280*	*2 610*
Canada	100	830
United States of America	180	1 780
Other		—
South & Central America & Caribbean	*80*	*1 390*
El Salvador	20	260
Other	60	1 130
Africa (excluding North Africa)	*1 330*	*5 430*
Ethiopia	50	450
Kenya	100	210
Somalia	100	500
South Africa	860	3 150
Zimbabwe	90	240
Other	130	880
Other and not stated	—	50
Total	**11 300**	**96 970**

(a) Figures are rounded to the nearest ten.
Reference: Unpublished table PMTR 0018

References

ABS Publications

Australian Demographic Statistics (3101.0)

Births, Australia (3301.0)

Causes of Death, Australia (3303.0)

Deaths, Australia (3302.0)

Demography, Western Australia (3311.5)

Estimated Resident Population by Age and Sex in Statistical Local Areas, Western Australia (3203.5)

Estimated Resident Population by Age and Sex, States and Territories of Australia (3201.0)

Marriages and Divorces, Australia (3310.0)

Social Welfare And Health

Chapter 5

SOCIAL WELFARE AND HEALTH

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Chapter 5

SOCIAL WELFARE AND HEALTH

Much of the information provided in this chapter has been supplied by the respective Commonwealth and State Government Departments and Authorities, either through direct contribution or taken from current Annual Reports. A list of Annual Reports is provided at the end of this chapter.

Social Welfare

The Commonwealth and State Governments and a large number of voluntary agencies provide social welfare services to meet the needs of the Western Australian population. The Commonwealth Government is concerned largely with providing fixed monetary pensions and benefits and repatriation services. It also provides, either directly or through State and Local Government Authorities and voluntary agencies, a wide range of welfare services for people with special needs.

State agencies operate in the field of child welfare and distribute emergency relief in circumstances where Commonwealth Government assistance is not available. The voluntary agencies, many of which receive government aid, provide a wide range of services in various fields of social welfare.

Income Support through the Department of Social Security (DSS)

The Social Security Portfolio has responsibility for six programs. Five of these are income security programs designed to meet the differing needs of the Department's clients and are based on supporting the following classes of need:

- Retired,
- People with disabilities and the sick,
- Unemployed,
- Families with children, and
- Special circumstances.

The sixth program provides support services for the income security programs and the Department.

Age Pensions

To qualify for the age pension, a man must be at least 65 years and a woman at least 60 years of age (60.5 years of age from 1 July 1995). The pension age for women is being progressively increased to 65 over a 20 year period, starting on 1 July 1995.

At 30 June 1995, there were 126,832 persons claiming the age pension in Western Australia, plus 3,694 persons on wife pensions. The total amount paid for such pensions in Western Australia was $946 million. At the same period for Australia 1,593,346 persons received an age or wife pension with a total amount paid of $11,884 million. Pension rates per fortnight at June 1995 were: single rate – $326.10; married rate (each) – $272.00; and wife pension – $272.00.

5.1 – PENSIONS, BENEFITS AND ALLOWANCES, 30 JUNE 1995

Pension or benefit	Number	Amount paid $'000
Aged pension (a)	130 526	946 276
Disability support pension (a)	52 564	394 702
Child disability allowance (b)	n.a.	23 682
Mobility allowance	n.a.	2 219
Job search/Newstart/ Mature age allowance	67 869	607 680
Sickness allowance	4 384	37 431
Basic family payment (c)	177 734	202 241
Additional family payment (c)	78 074	331 673
Sole parent pension	32 316	252 449
Double orphans pension	n.a.	169
Special benefit (b)	1 532	18 160
Home child care allowance	n.a.	64 650
Widow B pension	4 888	41 334
Widow allowance	745	2 683
Bereavement allowance	n.a.	113

(a) Includes wife's/carer's pension.
(b) Amount paid includes pensions for wives, guardians, etc.
(c) Number of families.
Source: Department of Social Security

Disability Support

The Income Security for People with Disabilities and the Sick program is broken up into seven sub-programs. The disability support pension is aimed at men under 65 and women under 60 years of age (60.5 from 1 July 1995) who are unable to work full-time at full award wages owing to a substantial physical, intellectual or psychiatric impairment or who are permanently blind. Wives who are caring for disabled husbands may be eligible for a carer's pension. Carer pensions are payable to those who provide full-time personal care to a severely disabled person living in the same or adjacent home.

Sickness allowance is a short-term payment for people who have suffered a loss of income because of a temporary incapacity to work due to an illness or injury. Mobility allowance may be paid to people who are in paid or voluntary employment, undergoing training or looking for work as part of an approved Activity Plan with

a Disability Panel and who, because of their disabilities, cannot use public transport without substantial assistance.

Child disability allowance provides extra financial assistance to families with children having disabilities where the children need extra care. Postal concessions for the blind provide free postage for the blind and for libraries dispatching material for the blind.

Unemployed

The objectives of this program are to ensure that unemployed people who are actively searching for work, or participating in other labour market related activities, receive adequate levels of income for themselves and their spouses and have their entry or re-entry into employment encouraged and facilitated.

The program consists of two sub-programs which are structured primarily around the length of time that participants have been unemployed. Job Search Allowance (JSA) focuses mainly on those unemployed for less than a year or aged under 18 years. On 1 January 1995 the JSA was replaced by the Youth Training Allowance for new under 18 year old claimants. Assistance for the Long-Term Unemployed covers eligible persons unemployed for more than a year. Two allowances are payable under this sub-program, either Newstart or a Mature Age allowance. As shown in Table 5.1, there were 67,869 people registered with JSA, Newstart or Mature Age Allowance schemes in Western Australia at 30 June 1995. The total amount of benefits paid to Western Australians under these schemes in 1994–95 was $607.7 million.

Family Support

The Income Security for Families with Children Program provides payments and other assistance targeted specifically at families with children. Assistance for children is provided through Family Payment, which comprises Basic Family Payment and Additional Family Payment. As at 30 June 1995, there were 177,734 (347,978 children) Western Australian families receiving the Basic Family Payment of which 78,074 (157,684 children) also received an additional family payment. A total of $533.9 million in Family Payments was paid to Western Australian families in 1994–95. The Double Orphan pension is also paid through this program for certain children who have no parent to care for them — $139,000 was paid to Western Australians in 1994–95.

Assistance for couples with dependent children is paid in recognition of the contribution made by parents who remain substantially out of the paid workforce to care for their children. Home Child Care Allowance (HCCA) was a non-taxable payment made directly to the primary carer, offering an alternative to the Dependent Spouse Rebate (at the 'with child' rate) available in the taxation system. From 1 July 1995, Parenting Allowance subsumed HCCA.

Assistance is provided for sole parents and their dependent children. The main element of this is the Sole Parent pension.

As at 30 June 1995, 32,316 persons received the Sole Parent pension and $252.4 million was paid out under the scheme in Western Australia. This income support is complemented by the Jobs, Education and Training component which encourages and assists eligible persons to obtain employment. Assistance is also provided through the Child Support Scheme, which aims to improve financial support for children of separated parents, by obtaining contributions from non-custodial parents (in accordance with their capacity to pay) to support their children.

Special Circumstances

The Special Circumstances Program provides income support payments to certain categories of people who are unable to provide adequately for themselves and who do not receive a payment under other programs. In addition, through this program a small allowance is paid to recently widowed persons without dependent children in the period immediately following the death of a spouse.

A substantial proportion of outlays on Provision for Special Circumstances is in respect of payments which provide a safety net for people who are not eligible for payments under the other programs and who are unable or not expected to provide for themselves.

Fringe Benefits

The majority of pension and allowance beneficiaries are entitled to a range of non-cash fringe benefits upon presentation of a concession card. Before 1 April 1993 there were four different concession cards:

- pensioner health benefits card,
- pharmaceutical benefits card,
- health benefits card, and
- health care card.

From 1 April 1993, the pensioner health benefit card was extended to all pensioner and older, long-term allowees and the pharmaceutical benefits card was abolished.

Income Support through the Department of Veterans' Affairs

The pensioner health benefits card entitles the holder and dependants to concessionary pharmaceutical prescriptions, free hearing aids, telephone allowance, some free rail travel and a range of rebates/concessions on some essential services (such as transport, energy and rates) provided by State and Local governments.

The Department provides veterans and their dependants with a range of benefits, including service pensions and disability pensions, to compensate veterans and their dependants for the effects of war or defence service.

Disability Pension

Where a veteran's incapacity or death is determined to be war or defence caused, compensation is provided in the form of pensions and associated allowances.

Service Pension

The main form of income support provided to veterans is the service pension. Introduced in 1935, it is an income and assets tested pension similar to the age pension paid by the Department of Social Security. However, the service pension is paid earlier than the age pension, at 55.5 years for female veterans and at 60 years for male veterans, in recognition of the intangible effects of qualifying service. On 1 July 1995, the minimum age at which female veterans can qualify for a service pension (age) was raised from 55 to 55.5 years. It will be lifted by 6 months every two years until the qualifying age for female and male veterans is the same.

Dependant's pension

War widow's/widower's pensions and orphan's pensions are paid to dependants of disability pensioners after the death of the veteran or member. Similarly, wives and widows of service pensioners may be entitled to a service pension.

5.2 – DISABILITY PENSIONS, 30 JUNE 1995

Type of service	*Incapacitated veterans*	*Dependants(a)*	*Total*
World War I	11	353	364
World War II	9 397	12 056	21 453
Korea, Malaya and Far East Service Reserve	527	332	859
Special Overseas Service	1 268	798	2 066
Peacetime Forces & Gulf War	2 732	885	3 617
World War II Merchant Navy	31	6	37
Total	**13 966**	**14 430**	**28 396**

(a) Number of pensions payable to dependants of incapacitated or deceased veterans.
Source: Department of Veterans Affairs

5.3 – SERVICE PENSIONS, 30 JUNE 1995

Type of service	Payable to veterans	Payable to wives/widows	Total
World War I	20	43	63
World War II	12 756	9 331	22 087
Korea/Malaya	758	534	1 292
Far East Strategic Reserve	103	63	166
Special Overseas Service	832	581	1 413
British Commonwealth Forces	3 532	2 842	6 374
Allied Forces	410	346	756
Australian Mariners	161	122	283
British Commonwealth and Allied Mariners	63	42	105
Total	**18 636**	**13 904**	**32 540**

Source: Department of Veterans' Affairs

Carer's Pension

Pensions are granted to persons who provide ongoing care in the home of a severely handicapped veteran service pensioner. The pension is a means-tested income support payment.

Allowances

Several allowances are provided to supplement service and disability pensions. These allowances vary according to the severity of disability and the special needs of the pensioner. They include attendant's allowance, telephone allowance, rent assistance and housing loan subsidies. An education allowance is paid for children of certain deceased, blinded and totally and permanently incapacitated veterans.

Department of Human Services and Health

The Commonwealth Department of Human Services and Health administers programs which provide or subsidise services offering universal access to:

- primary health care,
- illness prevention and promotion of better health, as well as
- services for the aged, children and people with disabilities.

These programs include:

- Health Advancement,
- Health Care Access,
- Aged Care,
- Disability Programs, and
- Family and Children's Services.

Health Advancement

This program aims to improve the health of all Australians, to reduce differences in health status between social groups and to promote high quality health research that improves the social and economic well-being of Australians. Projects undertaken during 1994–95 included:

- preparation and endorsement of a national Hepatitis C action plan,
- completion of a review into the possible health effects of radio frequency emissions,
- commencement of the first comprehensive national nutrition survey since the 1940s, and
- continuing actions to combat HIV/AIDS and other communicable diseases.

Health Care Access

The Health Care Access program is set up to enable people access to appropriate health services at reasonable cost. It covers Medicare benefits, the Pharmaceutical Benefits Scheme, hospitals, insurance and other health services, and home and community care for people needing post-acute or palliative care.

Aged Care

The goal of the Aged Care program is to enhance the quality of life of older Australians through support for positive and healthy ageing and to provide a cohesive framework of high quality and cost-effective care services for frail older people and their carers. To achieve this goal the program makes available high quality and cost-effective services appropriate to assessed need.

Disability Programs

The Disability program's aim is to assist people with a disability to participate in community life as equal citizens, especially in the labour market. Nation-wide 1,571 employment places were created in the Disability Services program in 1994–95.

Family and Children's Services

By extending choices available for families and children at home, at work and in the general community, this program aims to improve the quality of family life. The Commonwealth Childcare Cash rebate was introduced on 1 July 1994. It reimburses parents up to 30% of claimable childcare costs (to a ceiling of $112.50 per week) when both parents or the sole parent is working, studying, training or looking for work. Nationally, in 1994–95, more than 27,800 childcare places (community managed and private) were established, bringing total operational places to almost 269,000 at 30 June 1995.

Department for Community Development

The Department for Community Development will go into the 1995–96 financial year with a new name and corporate identity – Family and Children's Services – which reflects more accurately its mandate and clearly spells out the focus of its services.

The Department, in partnership with other community services industry players, provides a wide range of services which are managed through two program areas, Family and Community Support, and Protection and Care of Children.

Family and Community Support

Services under the Family and Community Support program are managed through two sub-programs, Prevention and Development and Crisis Management and Support. These acknowledge the difference between preventive services and those which aim to alleviate the effects of a crisis.

During 1994–95, the Family Crisis program spent $2.5 million towards assisting 10,295 individuals. Assistance for protection from spouse abuse, emergency travel, unforeseen crisis and furniture removal are often interrelated and accounted for more than half the individuals assisted and more than $1 million expenditure. Assistance with funeral and optical expenses, the furniture loans scheme, family assistance and special needs made up the balance of the expenditure.

Protection and Care of Children

The promotion of family and community responsibility in safely caring for children, and young people up to 18 years of age, is the major focus of this program. The Department acts to protect children from maltreatment and ensure that children under its guardianship, or otherwise placed in care, receive appropriate quality care.

This program also has two sub-programs, Protective Intervention and Treatment and Supported Care. The first sub-program aims to identify and prevent child maltreatment and minimise its effect, while the second sub-program aims to ensure children under guardianship, and those in placements supported by the Department, receive quality care.

During 1994–95 there were 6,237 referrals identified as allegations of child maltreatment, a 20% decrease in allegations from 1993–94. This represents a significant change from the rapid increase since 1989. The Department investigates those allegations where there is reason to believe that maltreatment may be occurring. Of the 6,237 allegations, 4,326 were investigated. Child maltreatment was substantiated in 1,430 allegations (33%).

Disability Services Commission

The Disability Services Commission was established in December 1993. It was created out of the amalgamation of the former Authority for Intellectually Handicapped Persons and the former Bureau for Disability Services.

The Disability Services Commission is responsible for representing the special needs of the estimated 305,000 Western Australian citizens who report themselves as having a disability – 238,600 of whom (14% of the Western Australian population) report that their disability presents a handicap which interferes with their ability to perform certain tasks associated with daily living.

During 1994–95, the Disability Services Commission provided and/or funded services for an estimated 17,300 people with disabilities, and their families and carers. A further 12,600 people are currently estimated to have unmet needs for services or will require services within the next five years.

The Commission also carries on the work of the former Authority for the Intellectually Handicapped Persons in providing, or ensuring the provision of, services for Western Australians who have an intellectual disability. During 1994–95, approximately 4,168 people with an intellectual disability used a Commission funded or provided service.

The Western Australian Council of Social Services (Inc)

The Western Australian Council of Social Service (Inc) (WACOSS) is an independent organisation representing a wide range of interests in the field of social welfare, health and community services. The Council has individual members and organisational members, including voluntary agencies, self-help and community groups, professional associations and Commonwealth, State and Local government bodies.

WACOSS has four principal roles:

- to assist organisations within the community to develop professional, efficient, effective and compassionate services,
- to ensure a financially viable and well managed organisation with a sound ethical and moral basis,
- to educate the public and people working within the field about issues affecting social and community service organisations, their clients and disadvantaged people, and
- to produce proactive, powerful, principled and well informed policy.

One of the most important events in 1995 for WACOSS was the completion of the Australians for Reconciliation WA project for the Council for Aboriginal Reconciliation. The project, launched in Western Australia in February 1994, aimed to initiate, create and build bridges with significant Nyoongar organisations, individuals and community groups.

ABS Surveys

The ABS conducts surveys of relevance to social welfare.

National Child Care Survey

This survey is conducted every three years. The scope of the survey is restricted to families usually resident in Australia with children under 12 years of age. The survey collects information on existing child care arrangements and on the need for additional formal child care. Information is also collected on parents' working arrangements and child care (in particular the care of sick children), as well as employer assistance offered for child care. The latest data available relates to the survey undertaken in June 1993.

Results from the June 1993 Survey show for Western Australia:

- 156,400 children were involved in some type of formal and/or informal child care arrangement, representing 50% of all children under 12 years of age;
- 32,900 children receiving formal care represented 11% of all children under 12 years of age;
- 54% of all children who received formal care attended Pre-school;
- informal care was the most common type of child care, and was used by 123,500 (40%) of children of whom 71% were cared for by a relative;
- 46,600 (15%) children required some type of (additional) formal care;
- occasional care (45%) was the most common type of care required, with a further 20% requiring before and after school care (20%).

Further information may be obtained from *Child Care Australia, June 1993* (4402.0).

Survey of Disability, Ageing and Carers

The 1993 *Survey of Disability, Ageing and Carers* was conducted to provide estimates of the numbers and main characteristics of persons with disabilities, persons with handicaps, persons aged 60 years or more and carers.

An estimated 3,176,700 persons, or 18% of the Australian population, had a disability. In Western Australia, of the 305,000 people (18%) estimated to have a disability, 159,900 (52%) were males and 145,100 (48%) females. The most common disabling condition was arthritis and other musculoskeletal conditions, which accounted for over a quarter of all reported conditions.

A handicap results from a disability which limits a person's ability to perform certain tasks associated with daily living. The limitation must be in relation to one or more of the tasks, self-care, mobility,

verbal communication, schooling or employment. Of all Western Australians with a disability, 22% reported having a handicap. There was a higher rate of handicap amongst males; 26% of those with a disability reported a limitation compared with 17% of females.

Australia-wide there were 577,500 carers of disabled persons in 1993. For Western Australia, the figure was 45,700, of whom 67% were female. The ABS will conduct the next Disability, Ageing and Carers Survey in 1998.

Health

The Commonwealth and State government health authorities, together with local government authorities, cooperate in the maintenance of health services and in the prevention and control of infectious diseases in Western Australia. Health services are also provided by other Commonwealth and State government bodies, religious or community based non-profit organisations and by volunteer services.

Commonwealth Government Health Benefits and Services

Commonwealth activity in the health area is mainly concerned with the formulation of broad national policies, the provision of benefits to individuals and grants to organisations and the regulation of health insurance. Services are primarily directed towards ensuring that all Australians have access to necessary health services at reasonable cost.

Medical Benefits

Medicare provides Australians, and other eligible people, with reimbursement for medical and optometrical services, free shared ward accommodation and treatment and free out-patient treatment

5.4 – MEDICARE: WESTERN AUSTRALIA, 1994–95

Persons enrolled (a)	1 738 302
Services processed—	
General practitioner attendances	7 121 945
Specialist attendances	1 281 759
Pathology	4 358 427
Other	3 312 169
Total	**16 074 300**
Average services processed per enrolled person—	
Males	7.2
Females	11.4
Persons	9.3
Benefits paid	$470 257 442

(a) Medicare enrollees include some persons who are not Australian residents (e.g. visitors). Consequently the number of enrollees may exceed the resident population.
Source: Health Insurance Commission, Annual Report 1994-95.

at public hospitals. Health insurance funds, which are regulated by the Commonwealth, provide medical cover for those electing to be treated privately by a 'doctor of choice' or have private ward accommodation in a public hospital. The Commonwealth provides substantial financial assistance to the States to support Medicare services.

Health Insurance

The Health Insurance Commission pays Medicare and pharmaceutical benefits as provided for in the ***Health Insurance Act***. It also undertakes measures to detect and prevent medical fraud and excessive servicing with respect to the payment of benefits, and provides services for the processing of the Department of Veterans' Affairs treatment accounts.

Veterans and Dependants

The Commonwealth meets eligible veterans' and their dependants' costs for specialist, local medical officer, paramedical, and dental services, the supply and maintenance of surgical aids, and travelling and other expenses incurred in obtaining medical treatment. During 1994–95, the remaining Repatriation General Hospitals were either transferred to the state public hospital system or sold to private operators. All eligible veterans and dependants now receive health care through the Repatriation Private Patient Scheme. The Repatriation Commission accepts financial responsibility for the cost of health care for eligible persons.

State Public Hospitals

Substantial grants are provided to the States and Territories under the Medicare and other agreements to provide access to public patients in public hospitals, to improve the running of public hospitals, for palliative care services, to improve access to dental services and to implement the national mental health strategy.

Nursing Home Subsidies and Domiciliary Care Service

Nursing home subsidies are provided to ensure that those people who are assessed as needing nursing home care have access to residential support and care appropriate to their needs. The Commonwealth meets the approved operating deficits of eligible non-profit nursing homes for persons with disabilities. In addition, nursing home benefits are paid to a small number of nursing homes for people with disabilities.

Domiciliary nursing home care benefits and services are provided to assist frail aged and young disabled people who would otherwise require nursing home admission to remain in the community. The Domiciliary Nursing Care Benefit provides financial support to carers of frail aged people and people with disabilities who would otherwise require nursing home care. At 30 June 1995, Domiciliary Nursing Care Benefit was provided to 3,269 carers in Western Australia providing care for 3,321 people. Of those receiving care, 78% were aged 60 years and over.

Pharmaceutical Benefits Scheme

The Pharmaceutical Benefits Scheme (PBS) aims to provide Australians with access to a wide range of pharmaceuticals at affordable prices. The Health Insurance Commission administers

the PBS on behalf of the Commonwealth. It processes pharmacists' claims, reimburses them for medication dispensed and undertakes tasks associated with the detection and prevention of abuse.

During 1994–95, some 117.6 million prescriptions were prescribed nationally at a cost of $1,882 million. Cardiovascular and nervous system pharmaceuticals were the two most commonly prescribed categories of drug groups at 21% and 19% of all prescriptions respectively. In Western Australia during the same period, 9.3 million prescriptions were issued at a cost of $147.6 million.

Health Research

Commonwealth support for health research activities, generally provided in the form of project, program, institute and research unit grants, covers medical and public health research. Support includes financial assistance through the Medical Research Endowment Fund and the Public Health Research and Development Committee. Funds administered through these amounted to $122.3 million nationally for the calendar year 1995. The two major areas of medical research expenditure for 1995 being cardio-vascular ($24.8 million) and mental health ($17.7 million).

The Health Department of Western Australia

The Health Department of Western Australia's mission as the principal health authority is 'to promote, protect, maintain and restore the health of the people of Western Australia'. The Department co-ordinates and manages health care functions and services throughout the State. The Department also administers a wide range of legislation incorporating matters of individual and community health protection, treatment and regulation.

Services are delivered in a program format. A new program structure was adopted by the Department in 1993–94.

Public Health Program

The Department's Public Health Program endeavours to minimise the incidence of preventable disease, injury, disability and death through two sub-programs, Health Protection and Health Promotion.

Health Protection

The Health Protection sub-program is responsible for the development and administration of legislation to control the quality of food, air and water, exposure to pesticides and chemicals, misuse of drugs, and the management of hazardous and municipal wastes.

It is also responsible for the provision of services to minimise the incidence and severity of diseases and conditions, eg. women's cancer prevention services, immunisation services, HIV/AIDS and STD services, injury prevention initiatives, screening for hereditary diseases, and strategies to deal with community infectious diseases.

Health Promotion

The Health Promotion sub-program develops campaigns and strategies to inform the public about causes of disease and injury, especially those campaigns associated with modifying an unhealthy lifestyle.

Community Health Program

The aim of the Community Health program is to optimise the health of individual families within their normal living environment. Services provided to promote this are screening, immunisation and treatment of infants and school aged children within community health care clinics and schools. The provision of basic health care to special needs groups, such as indigenous people, women, people with severe chronic disability or disease, people on low incomes and people living in remote areas of the State, is also delivered under this program.

Hospitals Program

The Hospitals program exists to restore those who require hospital treatment to their optimum level of health and to provide obstetric care to women (care before, during and after childbirth). The services are delivered through the secondary and tertiary hospital care sub-programs.

Secondary hospitals provide a broad range of services including emergency, medical, surgical, paediatric, obstetric and rehabilitation services. The tertiary level hospitals provide a broad range of super-specialty and speciality services, such as intensive care, vascular, cardiothoracic, oncology, renal, neurosurgery and obstetrics.

Health Department statistics show that in 1993 there were 418,062 admissions of people resident in Western Australia to hospitals within the State. The admission rate for females (251 per 1000 female population) was higher than for males (216 per 1000 male population). The leading causes of hospitalisation for males were diseases of the digestive system (27 per 1000), injury and poisoning (25 per 1000) and diseases of the genitourinary system (23 per 1000). For females, the leading causes were pregnancy related (45 per 1000), diseases of the genitourinary system (33 per 1000) and the digestive system (33 per 1000). The average length of stay was 4.4 days, with 32% of all admissions being same-day cases. On average, females stayed longer in hospitals than males, 4.5 days compared with 4.3 days.

Continuing Care Program

The aim of the Continuing Care program is to provide support for people with moderate to severe functional disabilities and their carers and for people with terminal illnesses.

Services provided under this program are: nursing home and hostel services; hospice services; services to ease the suffering of the terminally ill; and home and community care services (ie. home nursing, home help, transport services, home maintenance, delivered meals, respite care). From 1 July 1995, a new funding system commenced which involves increased Commonwealth Government subsidies to State nursing homes. From this date Commonwealth nursing home policy and standards apply to State Government nursing homes.

Mental Health Program

Through the Mental Health program the Health Department aims to promote the mental health of individuals, prevent the development of mental health problems, and provide treatment and support to people with mental disorders. This is achieved through:

- mental health promotion campaigns,
- community based mental health services such as psychiatric clinics and drop-in centres,
- programs for at-risk youth (eg. homeless youth and substance abusers),
- hospital assessment and treatment services for people with acute mental disorders, and
- specialised inpatient and outpatient services for children and adolescents.

Dental Health Program

The Dental Health Program's aim is to promote and improve the dental health of Western Australians. Services provided under this program are the school dental health services, dental health services offered through the Perth Dental Hospital and metropolitan clinics and subsidised dental services offered by local dentists in country areas.

Other Health Services

Independent organisations provide a range of important health services for Western Australians. Many of these receive funds in the form of Commonwealth or State grants, but also rely heavily on support from individuals and private organisations. Some of the major independent organisations are detailed below.

Western Australian Alcohol & Drug Authority

The Authority's mission is to contribute to the well-being of the people of Western Australia by the minimisation of harm associated with the use of alcohol and other drugs. The primary objective is to ensure the provision of co-ordinated, accessible, comprehensive and effective prevention and treatment programs for people who are experiencing alcohol and other drug problems.

The primary strategies designed to achieve this objective are:

- to provide specialist clinical services to people experiencing alcohol and other drug problems;
- to provide community services to people experiencing alcohol and other drug problems; and

to provide clinical education and training to people working or studying in the health and welfare field.

THE WESTERN AUSTRALIAN CHILD HEALTH SURVEY

The *Western Australian Child Health Survey* was conducted in 1993 by the TVW Telethon Institute for Child Health Research in consultation with the Australian Bureau of Statistics (ABS). Information was collected from 1,462 families (with 2,737 children aged 4 to 16 years) to provide a comprehensive epidemiological study of the health and well-being of Western Australian children. A principal aim of the survey was to identify the developmental and environmental factors which enable and develop adolescent competency, resiliency and employment readiness.

The first volume of survey results, produced by the Institute in collaboration with the National Youth Statistics Unit of ABS, was released in April 1995. Subtitled *Developing Health and Well-being in the Nineties* (ABS Catalogue No. 4305.5), it provided a comprehensive picture of the physical and mental health status of Western Australian children.

While the majority (81%) of children were described as being in excellent or very good general health, the survey identified more than one in six (18%) children aged 4 to 16 years as having a significant mental health problem such as anxiety and depression, attention deficit disorder or other behaviour difficulties.

The second volume of results, released May 1996, subtitled *Family and Community Health* (ABS Catalogue No. 4304.5) provides a rare snapshot of how the family and local community influence the health and development of children and adolescents growing up in Western Australia in the 1990s. It includes descriptions of:

- The characteristics of families that contribute to the diversity of contemporary family and social life,
- The features of the family home and the nature of the social and material resources of the neighbourhood and local community which are important to the well-being of families and the healthy development of children,
- How families are managing their work and family responsibilities, and
- How families function in terms of the relationships within the family and the many demands of family life that impact on the health and well-being of family members.

Some of the key findings are:

- Original couple families remain the predominant family type, accounting for 72% of families with 4 to 16 year-old children. However, nearly 1 in 5 (19%) families were one parent families, and just over 9% were step or blended families.
- One parent (31,700) families cared for 17% or 50,200 of all Western Australian children aged 4 to 16 years.

- Couple families had greater levels of employment than one parent families. In 93% of couple families at least one parent or partner was employed, whereas only half of caregivers in one parent families were employed.

- When principal caregivers (usually the mother) were employed, they worked 25 hours per week on average. Secondary caregivers (usually the father) worked 48 hours per week on average.

- While the vast majority (89%) of couples reported a high quality marital relationship, about one in eight (12%) of families reported high levels of discord in their family relationships.

- Parents' perceptions of how they managed essential day to day tasks were significantly associated with their own physical and mental health, the health of other family members and the level of discord present in the family.

- Principal caregivers in families with high levels of discord were three times more likely to have a lower level of physical health and twice as likely to have a history of mental health problems than those in families with low levels of discord.

- Families with high levels of discord were twice as likely to have a child with a lower level of general health or with a mental health problem.

- The survey showed that there is no evidence to suggest that the mental health of children in couple families was any different if the principal caregiver stayed at home or was working outside the home. However, children in one parent families where the parent was employed had a lower incidence of mental health problems (29%) than those where the parent was not employed (50%).

- Positive parenting methods have considerable potential for reducing the risk of mental health problems in children. Children whose parents frequently used encouragement and rewarded desirable behaviour generally had lower rates of mental health problems (11%) than did children whose parenting was more coercive (29%) or inconsistent (24%).

The survey findings lend support to recommendations which aim to address the needs of families in the 1990s and which have potential to reduce child and adolescent mental health and other problems which affect the development and future prospects of children and adolescents. Three broad avenues for improving support to families in their task of rearing children are discussed. These include achieving better means of balancing work and family responsibilities, developing public policies and programs to strengthen family functioning and parenting, and various ways of building the capacity of local communities to provide families with more effective support.

The third and final volume of results, subtitled *Education and Health* (ABS Catalogue No. 4305.5 — to be released early in 1997) will examine the associations between the physical health, mental health and educational achievement of 4 to 16 year-old students attending primary and secondary schools in Western Australia.

In order to implement these strategies the Authority is structured into two service programs, Treatment Services and Prevention Services.

During 1994–95 the Alcohol and Drug Information Service serviced 16,212 callers, a 31% increase over the previous year. The methadone treatment program numbers increased by 6% to over 1,000 clients.

Aboriginal Medical Services

The Aboriginal Medical Service of WA (Inc) provides a health and medical service to the Aboriginal people of Western Australia. Funding is received from the Aboriginal and Torres Strait Islander Commission, Aboriginal Hostels Ltd, Department of Human Services and Health, Health Department of Western Australia and the National Australian AIDS Council.

Family Planning Association Western Australia

The Family Planning Association of Western Australia (Inc) is a community based non-profit organisation financed by grants from both State and Commonwealth Government and with self-generated funds. The Association strives to achieve excellence in sexual health care by providing services that affirm that all people are sexual throughout life and have a right to information and to personal choice and that acceptance of sexuality is integral to health.

The Association runs clinics in Northbridge, Fremantle and Mirrabooka engaged in gynaecology, pregnancy counselling, sexually transmitted infection, cervical screening and sexual dysfunction. Confidential counselling and information services in all areas of sexuality are available at all centres. The library in Northbridge has the most comprehensive collection of literature about human sexuality in the State and is open to members of the community.

5.5 – FAMILY PLANNING ASSOCIATION OF WESTERN AUSTRALIA (INC), 1994–95

Funding	*($)*
Commonwealth Government	1 483 166
State Government	78 000
Project grants	220 493
Self generated funds	343 870
Total	**2 125 529**
Services	*(No.)*
Clinical consultations	17 510
Telephone Information service	16 591
Participants in Community Education programs	4 144
Participants in Professional Education programs	1 023
Library attendance	5 178

Source: Family Planning Association of Western Australia, Annual Report, 1995

During 1994–95, 17,510 clients visited a Family Planning Association of Western Australia clinic and 34,504 services were provided. Investigations and screenings accounted for 36% of the services provided by the Association. Information and counselling accounted for a further 29% of services. Of the screenings and investigations, Pap Smears and Chlamydia screening accounted for approximately 50% of the total. Library and information services were provided by the central library in Northbridge on 6,908 occasions – an increase of 47% on last year. This included 5,178 personal visits, 1,605 telephone enquires and 125 mail requests.

Australian Red Cross, Western Australia

Australian Red Cross is part of an international movement whose principles motivate voluntary humanitarian action which is impartial, neutral and independent. The mission of Australian Red Cross, Western Australia is:

- to improve the quality of human life,
- to enhance self reliance and concern for others, and
- to help people avoid, prepare for, and cope with emergencies.

As part of its broad community services activities the Society operates the Blood Transfusion Service in Western Australia. During 1994–95, 77,419 units of blood were collected at the metropolitan and regional clinics.

Silver Chain Nursing Association

The mission of the Silver Chain Nursing Association is to assist people in need to live in the community. Domiciliary services, bush nursing and residential services are provided throughout the State by the Association.

Total revenue for the Association amounted to $53.5 million with approximately 74% of this coming from the Home and Community Care Program and the Government of Western Australia.

During 1994–95, 1,146,591 metropolitan client visits were made and 310,602 country client visits. This represents a 10% increase in metropolitan visits and an 8% decrease in country visits.

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Law, Order And Emergency Services

Chapter 6

LAW, ORDER AND EMERGENCY SERVICES

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Chapter 6

LAW, ORDER AND EMERGENCY SERVICES

Law and Order

In Western Australia the State Government has responsibility for enacting legislation, and providing a police force, judiciary and corrective service.

The Law Courts

The court system continues to experience rising demands and pressures mainly resulting from the increase in complexity and duration of civil and criminal trials.

Courts administered by the Courts Services Division of the Ministry of Justice include the Supreme, District, Magistrates' (Courts of Petty Sessions, Local Courts, Coroners), Family Courts and Children's Tribunals as well as the Western Australian Sheriff's Office.

Supreme Court of Western Australia

The Supreme Court of Western Australia is constituted under the *Supreme Court Act 1935* and exercises an original jurisdiction in both civil and criminal cases. It has exclusive jurisdiction in regard to certain cases, including serious indictable offences such as murder and treason. The Court is also vested with a wide range of appellate jurisdictions.

The target listing interval for civil matters and criminal trials, as well as civil and criminal appeals, is six months. As at 30 June 1996, there were 22 civil matters awaiting trial with listing intervals up to four months. A backlog of criminal trials is developing with 112 trials awaiting hearing dates representing a delay of 11 months. Full Court civil appeal backlogs have been reduced with 33 appeals outstanding and the delay reduced from 12 months in 1994–95 to five months in 1995–96. The Court of Criminal Appeal has a listing interval of three months.

The Court is preparing to implement full case management of civil actions by the end of 1996 following a successful pilot case management project. A second closed circuit television court has been commissioned to take the evidence of child and special witnesses. Video conferencing facilities have been provided to two courtrooms and a conference room in a bid to reduce the number of occasions that persons in custody are required to be brought up to court.

Three 'Electronic Courts' have been established to enable lengthy complicated trials and appeals to be conducted with the minimum use of paper, based on electronic format transcript and computer imaging of documents and exhibits.

District Court of Western Australia

The District Court of Western Australia, constituted under the *District Court Act 1969*, is a court between the Supreme Court and the Magistrates' Courts.

The District Court Criminal Delay Reduction program, under the guidance of the Chief Judge, has continued to reduce the backlog of delays in trial listings. In 1995-96 the delay hs been reduced to nine months. Several trials (those lasting for four weeks or more) continue to cause problems.

Case management has been introduced in the civil jurisdiction. Various milestones are set to enable the court to monitor the progress of all civil matters. This will result in substantial benefits to the court, the profession and litigants.

Courts of Petty Sessions

Courts of Petty Sessions are established under the *Justices Act 1902*. These Courts are held throughout the State and deal with minor criminal cases, as well as committal proceedings in cases of more serious offences. The number of matters dealt with has decreased over recent years due to the enactment of legislation to streamline the process of collecting fines. In 1995 the *Fines, Penalties and Infringement Notices Enforcement Act* came into operation. This legislation provides methods to collect fines outstanding in respect to both infringement notices and fines imposed in courts. In 1995–96 there were 55,302 unpaid infringement notices registered at the Fines Enforcement Registry together with 82,764 unpaid court fines. The number of court fines includes fines outstanding for up to ten years. At present 51 prosecuting agencies pursue the collection of outstanding fines through the system.

Local Courts

Local Courts are established under the *Local Courts Act* and are held throughout the State to determine minor civil issues. Jurisdiction is limited in most cases to claims not exceeding $25,000. The Small Disputes Division of the Court enables matters of small debts to be determined for claims up to $3,000 and handles disputes between landlord and tenants under the provisions of the *Residential Tenancies Act 1987*. A total of 8,266 Residential Tenancies applications were lodged in Local Courts in 1995–96.

Coroner's Courts

Coroner's Courts are responsible for inquiring into the circumstances of a person's death, where that person has suffered a violent or unexpected death, or where the nature of their death is uncertain. Coroner's Courts also inquire as to the cause and origin of fires relating to a person's death.

Children's Courts

Children's Courts in Western Australia are constituted under the *Children's Court of Western Australia Act 1988* as a distinct jurisdiction, headed by the President who is a District Court Judge. The Court has exclusive jurisdiction to deal with all offences alleged to have been committed by children, as well as to hear applications to have children declared in need of care and protection.

The number of charges heard by the Court continues to fall. For 1995–96 the number of criminal charges lodged in the State fell 9% from the previous year which represents a significantly smaller reduction than that of the previous year (22%).

The Young Offenders Act was proclaimed in March 1995. The Act has made major changes to the way the Court deals with young offenders, including the increased involvement of responsible adults, the introduction of juvenile supervised release (parole), a new set of sentencing options and the replacement of Children's Panels with Juvenile Justice Teams.

Family Court of Western Australia

The Family Court of Western Australia is vested with State and Federal jurisdiction in matters of family law and deals with divorce; property of a marriage; residence, contact and other matters relating to children; maintenance and adoptions. Further information on Divorces is outlined in Chapter 4 of this publication. For a more detailed explanation of the Family Court, see page 117 of the 1993 Western Australian Year Book.

The Jury System

The operation of the jury system is governed by the *Juries Act 1957*. Indictable offences are tried before a Judge and 12 jurors sitting in the criminal jurisdiction of either the Supreme Court or District Court, depending on the gravity of the offence. Juries for civil cases comprise six persons.

Subject to the Juries Act, a person who is enrolled on any of the rolls of electors entitled to vote at an election of members of the Legislative Assembly of the State Parliament, is liable to serve as a juror at trials in the jury district in which he or she is shown to live by any of those rolls of electors. Each year, a Juror's Book is prepared by the Chief Electoral Officer for each jury district within the State for persons who qualify as jurors. Certain persons are excluded from jury service and persons may be excused on the grounds of illness, undue hardship, circumstances of sufficient weight, importance or urgency, or recent jury service.

Victim Support Services

The Victim Support Service is a branch of the Court Services Division of the Ministry of Justice. It provides trauma debriefing, counselling, information, court support, assistance with Victim Impact Statements and assistance with applications for Criminal Injuries Compensation for victims of crime. The majority of referrals come from the Police Service. It is also involved in associated policy development and advocacy matters within the criminal justice system.

Law Reform Commission of Western Australia

The Law Reform Commission of Western Australia was established by the *Law Reform Commission Act 1972*. The commission's function is to examine proposals for the review of various laws which have been referred to it by the Attorney-General. It may also submit suggestions to the Attorney-General for review.

The commission usually issues a discussion paper dealing with an issue, and invites comments from interested persons. A report is then made to the Attorney-General. Recent reports issued by the commission deal with United Kingdom statutes in force in Western Australia, joint tenancy and tenancy in common, consent to sterilisation of minors, the enforcement of orders under the *Justices Act 1902* and the enforcement of judgements of Local Courts.

As at July 1996, the commission had issued a total of 87 reports, 81 of which recommended legislative changes. To date, 52 of these have been implemented by legislation passed by the Western Australian Parliament.

Legal Aid

Legal Aid Commission of Western Australia

People in Western Australia may receive legal advice, guidance and financial assistance towards their legal costs from Legal Aid Western Australia. Legal Aid is an independent statutory body and is funded principally by Commonwealth and State Governments. Legal Aid currently employs a staff of 189 of whom 63 have qualifications in law.

Legal Aid takes a solution orientated approach to resolving legal problems and concentrates on the provision of self-help assistance including legal advice and minor assistance, workshops, forums, kits and pamphlets. Litigation assistance is available to eligible applicants.

Aboriginal Legal Services

The Aboriginal Legal Service of Western Australia is the largest community based Aboriginal organisation in the State. Among its aims is the provision of direct relief to Aboriginal people suffering poverty, distress, or helplessness as a result of their involvement with the laws of the Commonwealth or States of Australia. The service has grown from a staff of six in 1973, to 100 people working out of 16 offices throughout the State. The Aboriginal Legal Service is funded by a grant from the Aboriginal and Torres Strait Islander Commission. The Legal service deals with around 40,000 matters each year. The service includes family law, criminal law, a Civil and Public Interest Unit and a Land and Heritage Unit.

State Ombudsman

The Parliamentary Commissioner for Administrative Investigations (or State Ombudsman, as the position is better known) receives and investigates complaints relating to the administration of State Government departments, local government authorities, and most statutory authorities, as well as about both the conduct and administrative actions of members of the Police Force.

There are some complaints about government matters that the Ombudsman does not have the power investigate, including decisions made by Government Ministers. Other areas outside the Ombudsman's jurisdiction include complaints about non-government matters, decisions made by courts of law, and actions of companies, associations, clubs and private persons.

Ministry of Justice

In early 1996, the Ministry of Justice underwent an organisational restructuring involving the merger of the Adult Offender Management Division and the Juvenile Justice Division under an Executive Director of Offender Management. The changes reflect a more collaborative approach to the treatment of offenders.

The management of adult and juvenile offenders involves:

- the Adult Offenders Custody sub-program which maintains security and good order in the State's 13 prisons and looks after prisoners' welfare and rehabilitation through education, vocational training and development programs;
- the Adult Offenders Community sub-program which manages adult offenders subject to community based supervision orders, provides pre-sentence offender reports to courts and offender assessment reports to releasing authorities;
- the Juvenile Offenders Custody sub-program which provides safe and secure, pre and post sentencing detention for young offenders, and also addresses offending behaviour and development needs;
- the Juvenile Justice Community sub-program which provides services through government and non-government agencies, involving families and the community where possible, to help reduce juvenile crime and divert young offenders from court, and supervises and supports young offenders carrying out community based orders.

The daily average muster for adult prisoners during 1995–96 was 2,238. This represents an increase of 119 over last year's figure. The muster peaked at 2,311 during October 1995.

There were 66 adult escapes during 1995-96 compared with 86 during 1994–95 and 62 during 1993–94.

The average daily population of sentenced juvenile detainees during 1995–96 and for 1994–95 was 74. The population peaked at 90 in December 1995, down from a high of 107 in August 1994. There were two escapes in 1995–96 and four during 1994–95.

Police

The mission of the Western Australian Police Service is 'In partnership with the community, create a safer and more secure Western Australia by providing quality police services'.

The core functions of the Western Australian Police Service are:

- Prevention and Control of Crime;
- Maintenance of Peace;
- Traffic Management and Road Safety;
- Emergency Management Co-ordination; and
- Assisting members of the community in time of emergency and need

Western Australia comprises four police regions: Metropolitan (containing six districts and 42 police stations); Central (two districts and 15 stations); Northern (two districts and 23 stations) and Southern (five districts and 80 stations).

6.1 – OFFENCES REPORTED

Offence	Offences reported 1994-95	Offences reported 1995-96	Offences cleared 1995-96	
	No.	No.	No.	%
Offences against the person				
Homicide (a)	80	51	51	100.0
Robbery (b)	1 366	1 559	622	39.9
Assault (c)	11 302	13 062	11 054	84.6
Sexual assault (d)	2 903	2 736	2 578	94.2
Deprivation of liberty	244	262	187	71.4
Total Offences Against the Person	*15 895*	*17 670*	*14 492*	*82.0*
Offences against property				
Burglary (break and enter)	60 309	56 412	7 252	12.8
Stealing	72 938	73 338	16 390	22.3
Motor vehicle theft (e)	20 895	17 571	3 069	17.5
Fraud	11 914	7 537	6 409	85.0
Arson	580	609	200	32.8
Damage	34 401	39 569	7 199	18.2
Total Offences Against Property	*201 037*	*195 086*	*40 519*	*20.8*
Other offences				
Drugs	10 403	12 111	10 621	87.7
Other reported offences (f)	5 114	6 414	3 038	47.4
Total Other Offences	*15 517*	*18 525*	*13 659*	*73.7*
Total	**232 449**	**231 281**	**68 670**	**29.7**

(a) Includes murder, attempted murder and manslaughter.
(b) Includes armed and unarmed robbery.
(c) Includes common, serious, assault on Public Officer and assault on Police Officer.
(d) Incudes indecent assault, sexual penetration and aggravated sexual penetration.
(e) Includes actual theft and attempted theft.
(f) Includes other summary offences, other indictable offences, breach of restraining order and stalking.

Source: Western Australian Police Service

Total staffing numbers in the Western Australian Police Service at 30 June 1996 were 5,561, of which 4,543 were sworn police officers.

Recent initiatives which have been introduced by the Western Australian Police Service with the aim of achieving its Mission include a plan to recruit an additional 500 police officers by February 1997, setting up of the Crime Stoppers Unit, piloting of a community-based Domestic Violence Program, establishment of the Independent Patrol Group, Mobile Police Facility and City Maintenance Program, use of mobile breath testing stations 'Booze Buses', and increased usage of speed detection cameras.

Table 6.1 shows details of offences reported to the police. In the area of offences against the person the total number increased by 1,775 or 11% between 1994–95 and 1995–96. This was due mainly to increases in the number of assaults (up 1,760 or 16%) and robberies (up 193 or 14%). Homicides and sexual assaults both declined in 1995–96.

The overall clearance rate of offences against the person was 82% in 1995–96. Homicide (100%), sexual assault (94%) and assault (85%) recorded the highest clearance rates among the offence categories.

Offences against property declined by 5,951 or 3% between 1994–95 and 1995–96. The three categories of offences which contributed most to the decrease were burglary (down 6%), motor vehicle theft (down 16%) and fraud (down 37%). Damage offences increased by 5,168 (15%) and arson by 29 offences (5%).

National Crime Statistics

As shown in Table 6.2, for crimes reported to the police, Western Australia's rates (victims per 100,000 population) were above those for Australia in 1995 for 9 of the 13 crime categories. In addition, Western Australia recorded the highest rates for victims compared with all States and Territories for sexual assault (103), unlawful entry with intent (3,524), motor vehicle theft (1,032) and other theft (4,337).

Of the 1,781 cases of sexual assault reported, 84% of the victims were female. Almost half (49%) of all victims were aged 14 years or younger with a further 20% aged 15–19 years. The offender was known to the victim in 54% of cases and unknown to the victim in 22%, while in 24% of cases the relationship was not stated or inadequately described.

Offences involving unlawful entry with intent are often described as burglary or break and enter offences. A total of 61,027 premises were recorded by the police as being victim of these offences in Western Australia. In almost 67% of cases, private residential dwellings were the victims, and a further 15% were retail premises.

There were 17,869 motor vehicle thefts reported to the police in 1995. The most common locations for motor vehicle theft were garages and driveways associated with residences (42%), areas associated with retail outlets (16%) and cars parked on streets and footpaths (12%).

Other theft (i.e. where property is taken but not involving unlawful entry of a premises or theft of a motor vehicle) was the largest category of property offence. A total of 75,096 victims of other theft were recorded in Western Australia in 1995. The most common sites of other theft offences were residential dwellings (35%) and retail premises (27%).

6.2 – CRIME VICTIMS (a): 1995

Offence	*Western Australia*		*Australia*	
	No.	Rate (b)	No.	Rate (b)
Murder and attempted murder	64	3.7	622	3.5
Murder	44	2.5	321	1.8
Attempted murder	20	1.2	301	1.7
Manslaughter	7	0.4	30	0.2
Driving causing death	44	2.5	314	1.7
Assault	10 990	634.6	101 149	560.3
Sexual Assault	1 781	102.9	12 809	71.0
Kidnapping/abduction	34	2.0	469	2.6
Robbery	1 403	81.0	16 466	91.2
Armed robbery	671	38.8	6 631	36.7
Unarmed robbery	732	42.3	9 835	54.5
Blackmail/extortion	8	0.5	152	0.8
Unlawful entry with intent	61 027	3 524.1	384 897	2 131.9
Motor vehicle theft	17 869	1 031.9	126 919	703.0
Other theft	75 096	4 336.6	489 785	2 712.9

(a) The statistics in this table only cover crimes reported to, or otherwise detected by police.
(b) Rate per 100,000 of population.
Reference: ABS Catalogue No. 4510.0

Crime and Safety Survey

A Crime and Safety Survey was conducted throughout Western Australia in October 1995 as a supplement to the ABS Monthly Population Survey. The survey was conducted at the request of the Ministry of Justice and the Office of the Attorney General.

Information was collected from individuals and households about their experience of selected crimes, reporting behaviour, individual's perception of crime problems in their neighbourhood and household's membership of Neighbourhood or Rural Watch programs.

Results from the October 1995 survey included:

- Of the 636,500 households in Western Australia, 100,900 households (15.8%) experienced at least one household crime during the 12 months to October 1995, compared with 15.6% for the 12 months to October 1991.

- The victimisation rate for household crime for the 12 months to October 1995 was higher for Perth (17.5%) than for the balance of the State (11.0%).

- Of the estimated 1,293,300 persons aged 15 or over, 57,600 (4.5%) were victims of at least one personal crime during the 12 months to October 1995. This compares with 6.3% recorded for the corresponding period in 1991.

- For personal crime, higher victimisation rates occurred among males (5.1%) than females (3.8%). Younger people experienced higher victimisation rates than older people, with the highest rate (8.2%) being among 15–24 year olds and the lowest rate (1.6%) being among those aged 55 years and over.

- Reporting to the police varied widely according to the nature of the crime. For household crimes, rates of reporting the most recent incident to police ranged from 93.7% for motor vehicle theft to 31.2% for attempted break and enter.

- Among victims of personal crime, 60.5% of robbery victims reported the most recent incident to the police. By comparison, 40.9% of victims of assault reported the most recent incident to the police.

- Over half (57.4%) of all persons aged 15 and over felt that their neighbourhood had a crime or public nuisance problem.

- Almost one fifth (19.2%) of households were members of the Neighbourhood or Rural Watch programs.

Further details of the Survey are published in *Crime and Safety Western Australia, October 1995* (4509.5).

Emergency Services

Fire

Fire and Rescue Services of Western Australia

The Fire and Rescue Service of Western Australia, formerly known as the Western Australian Fire Brigades Board, is responsible for the largest fire service district in the world: Western Australia.

The Fire and Rescue Service was set up as a Statutory Authority under the provisions of the *Fire Brigades Act 1942–1985*, and its mission is 'to minimise the number and impact of fires and other emergencies on the people, property and environment of Western Australia'.

To achieve this mission the organisation undertakes several primary roles including the prevention of emergencies, suppression of property and bush fires, hazardous materials combat, and road accidents and other rescues.

Fire and Rescue Services are provided at 126 locations throughout the State, from Wyndham in the north to Denham in the west, Augusta in the south-west and Esperance in the east. Services are also provided on the Cocos and Christmas Islands in the Indian Ocean under a Service Delivery Agreement with the Commonwealth Government.

In the metropolitan area there are 19 fire stations which house career fire fighters. In addition nine volunteer stations are attached to the metropolitan district. A mixture of career and volunteer firefighters are integrated at stations in Albany, Armadale, Bunbury, Geraldton, Kalgoorlie, Northam and Rockingham. The remaining volunteer fire brigades are established in various country towns across the state.

The Fire Brigade Board employs around 1,000 staff and has around 2,500 registered volunteer firefighters. The Brigade has 263 firefighting vehicles, 106 non-firefighting vehicles, 71 rescue trailers and 22 historic museum vehicles.

The State Government fully funds the operations of the volunteers — about $7 million of the $67 million required to fund the operations of the Service. Of the $60 million required to fund the career service, 75% comes from a levy on property insurance premiums. The State and Local Government each contribute 12.5%.

During 1995–96, firefighters responded to a total of 18,418 emergencies throughout the State. More than one third of those calls (7,000) were to urban bush, scrub and grass fires – around one third (6,000) were false alarms and just under one sixth were property fires (2,800).

The Fire and Rescue Service has undertaken a broad range of prevention activities for many years. Such initiatives include general public awareness and education programs, fire and other hazard safety programs for young people, building fire safety activities including a residential smoke alarm program, and bush fire safety initiatives, such as Community Fire Guard which encourages homeowners to take greater responsibility for their property in minimising existing or potential fire hazards.

Bush Fires Board

Constituted under the *Bush Fires Act 1954*, the Board's charter is to administer the provisions of the Bush Fire Legislation and to maintain a high standard of rural fire safety, which through the provision of fire protection services policy and direction, supports local government and their bush fire brigades.

The mission of the Bush Fires Board is 'to work with local governments, volunteers and other fire services, to protect life, property and the Western Australian environment through an informed community and well resourced bush fire brigades'.

The Bush Fires Board is responsible for the overall administration of the Bush Fires Act and Regulations, with day to day administration and the maintenance of Bush Fire Brigades being the responsibility of local governments.

Volunteer bush firefighters are organised statewide into 720 Bush Fire Brigades with a membership in the order of 16,000 persons.

St. John Ambulance Australia

St. John Ambulance is the main provider of ambulance service and first aid training in Western Australia. It operates the WA Ambulance Service, which provides emergency treatment and transport across the largest area in the world to be serviced by a single ambulance authority. As at the end of 1996, the WA Ambulance Service comprised approximately 340 ambulances, 2,000 volunteers and 260 paid Ambulance Officers. St John First Aid Courses were attended by 42,000 persons in 1995.

Royal Flying Doctor Service

The Royal Flying Doctor Service of Australia (RFDS) is a non-profit organisation financed by grants from the Commonwealth and State Governments and by private donations. The principal function of the Service is to provide aerial medical services for all persons irrespective of their location and economic situation. Its mission is 'to bring peace of mind to rural Australians by providing the world's best aerial health service'. There are five Flying Doctor bases in Western Australia, based in Derby, Port Hedland, Meekatharra, Jandakot and Kalgoorlie, operating with a total of 17 aircraft. For the year ended 30 June 1996, the RFDS in Western Australia flew 4,132,377 kilometres, and was in contact with 44,668 patients, 5,779 of whom required transportation. In Western Australia, the RFDS has 116 staff, 28 of whom are pilots, 10 doctors (plus subcontracted doctors in Derby), 21 nurses and 13 radio staff.

The radio network of the Royal Flying Doctor Service is regularly used in the work of Schools of the Air conducted by the Ministry of Education, and also for the transmission and receipt of telegrams and radio telephone calls. In addition, it may be used in connection with flood relief, in searching for lost parties and during cyclones or other emergencies.

State Emergency Services

The Western Australian State Emergency Service (WASES) mission is 'to assist the community to cope with natural or man made emergencies'. It achieves this through establishing, training and equipping volunteer State Emergency Service units throughout Western Australia and through managing the hazards for which it has 'lead combat authority' responsibility. The WASES has in excess of 80 SES units and over 2,100 volunteer members.

On 1 July 1995, following nearly 10 years association with the Police Department, the WASES was separated from the Police and established as a department in its own right.

Despite the separation, the WASES maintains close operational and planning links with the Western Australian Police who are responsible for the overall coordination of emergency response activities. The Service's volunteers continue to provide the Police with assistance in non-crime orientated tasks and management of public events such as the annual Australia Day 'Skyshow'.

The WASES is the 'lead combat authority' for flood, cyclone, storm and earthquake. It is also a 'combat authority' for land search, road accident rescue (in specified areas), and cliff and cave rescue. In addition to these roles, the WASES acts in a support role to the Police and other emergency services to assist them to manage a range of emergencies.

The predominant Lead Combat Authority operational task for WASES for the year May 1995 to May 1996 was as a result of storms. This follows the pattern for preceding years. A total of 188 activations were recorded with units attending 904 premises. A total of 4,070 volunteer hours were expended on this responsibility. The majority of tasks in this category occurred in the Metropolitan and Southern Region.

Tropical cyclones were the next most frequent Lead Combat Authority operations for the WASES during the period. A total of six tropical cyclones threatened the communities of Western Australia during the year. The most damaging, Cyclone *Olivia*, caused major damage to the town of Panawonica. The 1995–96 cyclone season was therefore one of the busiest on record for the Bureau of Meteorology and the WASES. This proved to be a thorough test for the interim State Tropical Cyclone Emergency Management Plan which was released just prior to the 1995–96 cyclone season onset.

Land search continues to be the most common task performed by the WASES with the largest number of volunteer hours, a total of 8,555 hours, expended. In total there were 715 unit activations resulting in over 28,000 hours of volunteer work.

References

ABS Publications

National Crime Statistics, January to December 1994 (4510.0)

Crime and Safety Western Australia, October 1995 (4509.5)

Education

Chapter 7

EDUCATION

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Chapter 7

EDUCATION

Material for this chapter was prepared in consultation with the relevant State and Commonwealth Education Authorities.

In Western Australia, education at pre-primary, primary and secondary levels is provided at government schools which are administered and staffed by the Department of Education and at non-government schools, which are mainly conducted by the principal religious bodies. Technical and further education is offered by the Department of Training and by three independent regional colleges. The latter also provide higher education facilities. Additional higher education is available through four State universities and one private university.

7.1 – FULL-TIME STUDENTS (a) 1995

Age at 1 July	*Government schools (b)*		*Non-government schools (c)*		
	Males	*Females*	*Males*	*Females*	*Total*
Years	No.	No.	No.	No.	No.
5 and under	4 727	4 649	1 299	1 342	12 017
6	10 559	10 004	2 923	2 890	26 376
7	10 498	9 961	3 054	2 817	26 330
8	10 701	10 084	2 954	2 839	26 578
9	10 711	10 167	2 953	2 946	26 777
10	10 720	10 141	2 909	2 879	26 649
11	10 573	9 784	3 036	2 959	26 352
12	9 933	9 330	3 597	3 569	26 429
13	9 327	8 562	4 194	4 008	26 091
14	8 906	8 283	3 957	3 949	25 095
15	7 806	7 379	3 447	3 636	22 268
16	5 877	5 970	2 988	3 319	18 154
17	3 006	3 122	1 760	1 732	9 620
18	1 165	1 146	380	254	2 945
Total	**114 509**	**108 582**	**39 451**	**39 139**	**301 681**

(a) Excludes pre-primary and technical school students.
(b) Includes students attending education support schools, centres and units.
(c) Includes students attending special schools.
Reference : Catalogue No. 4221.0

Pre-Primary Education

Before starting primary school, a child may undergo pre-primary education at either a government or non-government school. A child may also attend a Government staffed community pre-school or an independent pre-school. Pre-primary education attendance is optional. Children generally start pre-primary during the year in

which they turn five years of age. They may start during their fourth year where vacancies exist and attend two half day sessions per week.

Every person running a pre-school centre must hold a permit issued by the Minister for Education and all authorised pre-school centres are subject to inspection by an officer of the Department of Education.

7.2 – PRE-PRIMARY EDUCATION (a)

	1993	*1994*	*1995*
Number of Centres—			
Government—			
Pre-primary	558	554	565
Community pre-school	113	110	103
Non-government -			
Pre-primary	174	190	197
Independent pre-school	20	19	19
Total	**865**	**873**	**884**
Number of Teaching Staff(b)—			
Government	743	756	719
Number of Children—			
Government—			
Pre-primary	24 087	23 986	24 138
Community pre-school	5 712	5 539	5 104
Non-government—			
Pre-primary	5 585	6 028	6 229
Independent Pre-school	1 018	960	997
Total	**36 402**	**36 513**	**36 468**

(a) The statistics in this table are as at year ending 31 July.
(b) Numbers shown are for full-time equivalents rounded to the nearest whole number.
Source: Education Department of Western Australia.

Primary and Secondary Education

Children normally start primary school at the beginning of the year in which they attain the age of six years. Instruction in primary school is provided over seven years. A child who makes normal progress completes the course at the age of 12 years and then enters secondary school. Except in special circumstances, attendance is compulsory to the end of the year in which the child attains the age of 15 years.

Secondary education is provided over a period of five years from Year 8 to Year 12. Generally, students may leave at the end of Year 10 or continue through to Year 12 to attain a Certificate of Secondary Education or the new Western Australia Certificate of Education.

Western Australia currently has two Senior Colleges and two Senior Campuses run by the Education Department which give 'second chance' secondary education to those people who left the school system before achieving their goals.

The Department of Education has a number of programs giving help to students with special needs. They include Aboriginal and Torres Strait Islanders, students from a non-English speaking background, students with disabilities, or from socio-economically disadvantaged areas, students who are geographically isolated and gifted and talented students. Special programs are also available which address issues of gender equity in education.

The School of Isolated and Distance Education Centre (SIDE) of the Education Department provides schooling to a wide variety of students who are unable to attend a conventional school for reasons of isolation. These include students living in rural and remote areas, and isolated Indigenous communities. It also caters for students who are unable to attend conventional schools for various medical and social reasons, as well as for prisoners in jails. The SIDE enrols students from schools that are unable to offer the maximum choice of subjects because of the limitations of small staff size and timetables. In some cases the SIDE enrols students travelling interstate and overseas with their parents. Adults who are isolated and seeking a second chance are also able to access the SIDE.

Primary and Secondary School Curricula

The curricula of both primary and secondary schools are organised into the learning areas of English, Mathematics, Science, Health and Physical Education, Society and Environment, Technology and Enterprise, the Arts and Languages other than English.

Primary School Curriculum

The curriculum in Years 1 to 3 of primary school focuses on the developing students' language abilities and functional literacy and numeracy. All primary students study an integrated curriculum which covers the learning areas outlined in the paragraph above.

Secondary School Curriculum

Lower Secondary school students (Years 8 to 10) are given an increased opportunity to study programs of their choice according to their interests, ability and emerging vocational needs, whilst ensuring a balanced education. Generally, students are expected to study 160 hours of English and Mathematics each year and to study at least one semester-length course in each learning area (except Languages other than English).

Students in Years 11 and 12 study a combination of year-long and semester-long courses within academic and vocational programs, which prepare them for transition to further education, training or employment.

The Secondary Education Authority

The Secondary Education Authority (SEA) is a statutory body which accredits upper secondary courses, moderates student assessment, issues certificates and administers the Tertiary Entrance Examination. The SEA is responsible to the Minister for Education.

Student Achievement

The Certificate of Secondary Education is awarded to all Year 12 students who have completed at least one SEA course. Students in Years 11 and 12 study courses selected from Tertiary Entrance Examination (TEE), vocational and general courses approved by the SEA. Schools assess these students and the grades given are moderated by the SEA to ensure comparability across the State.

7.3 – GOVERNMENT SCHOOLS (a)

	1993	*1994*	*1995*
Number of Schools—			
Primary schools	553	550	550
Education support schools/centres	59	63	63
Secondary schools—			
District high schools	60	60	60
High schools	5	3	2
Senior high schools	87	89	91
Senior colleges	2	2	2
Distance Education Centre	1	1	1
Total	**767**	**768**	**769**
Number of Teaching Staff (b)—			
Primary	7 651	7 541	7 656
Secondary	6 286	6 206	6 211
Education support (c)	421	436	428
Total	**14 358**	**14 183**	**14 295**
Number of Full-time Students(d)—			
Primary	143 871	144 885	145 561
Secondary—			
Years 8, 9 and 10	51 622	52 089	52 311
Years 11 and 12	25 574	24 608	23 902
Senior colleges	1 384	1 523	1 317
Total	**222 451**	**223 105**	**223 091**
Males	114 590	114 794	114 509
Females	107 861	108 311	108 582

(a) The statistics in this table are as at year ending 31 July.
(b) Numbers shown are for full-time equivalents rounded to the nearest whole number.
(c) Excludes teachers working in education support units attached to primary and secondary schools.
(d) Includes ungraded and education support students (students with disabilities) who attend primary or secondary schools.
Source: Education Department of Western Australia.

As part of a State wide trial, all Year 11 and Year 12 students who completed at least one SEA course in 1996 were issued with a Statement of Results. Those students who also met the trial Secondary Graduation requirements received a Western Australian Certificate of Education.

Students have an external examination in some Year 12 courses which can contribute to a student's Tertiary Entrance Score (called TES subjects). A numerical score (Scaled Mark) for TES subjects is reported on the Statement of Results. This numerical score is a 50:50 combination of the standardised moderated school assessment and the standardised examination mark. The combined mark is scaled using the Australian Scaling Test (AST).

Entrance to Universities is based on the TES, which is calculated using a student's best four or five TES subjects. Ten per cent of the student's AST score is also included. The maximum TES is 510. The student must also have satisfied the requirements for Secondary Graduation, satisfactory performance and English language competence.

7.4 – NON-GOVERNMENT SCHOOLS (a)

	1993	1994	1995
Number of Schools—			
Primary schools	147	146	149
Secondary schools	39	40	37
Primary/secondary combined	61	63	62
Special	2	2	2
Total	**249**	**251**	**250**
Number of Teaching Staff (b) (c)—			
Primary	2 153	2 247	2 317
Secondary	2 691	2 801	2 921
Total	**4 844**	**5 048**	**5 238**
Number of Full-time Students (c)—			
Primary (d)	39 653	40 509	41 560
Secondary—			
Years 8, 9 and 10 (d)	22 021	23 053	24 015
Years 11 and 12	12 448	12 424	12 638
Ungraded	166	321	377
Total	**74 288**	**76 307**	**78 590**
Males	37 314	38 323	39 451
Females	36 974	37 984	39 139

(a) The statistics in this table are as at year ending 31 July.
(b) Numbers shown are for full-time equivalents rounded to the nearest whole number.
(c) Students and the staff from special schools have not been identified separately.
(d) Includes students in ungraded classes.
Source: Education Department of Western Australia.

Post Secondary Education

Office of Higher Education

The Western Australian Higher Education Council provides a forum for the discussion of matters relating to higher education in Western Australia and for advising the State Minister for Education. The Department of Education Services, through its Office of Higher Education, supports the operation of the Council through the provision of administrative, secretarial and research services.

As a government department, the Department of Education Services contributes to the development of the educational system in Western Australia by providing objective and independent advice to the Minister on strategic issues and policy setting and by coordinating portfolio-wide initiatives directed toward system improvements.

Technical and Further Education (TAFE)

Vocational education and training (VET) is coordinated by the Western Australian Department of Training. In 1995 there were 106,011 clients in vocational programs with a further 37,492 clients enrolled in Adult and Community Education (ACE) programs.

The Department's mission is to contribute to the growth and development of Western Australia through a vocational education and training system which provides a skilled workforce and maximises training and employment opportunities for Western Australians.

A network of TAFE and community colleges, as multi-campus institutions aligned to broad geographic and economic regions, offers full-time and part-time accredited training. Full-time TAFE courses provide para-professional training, pre-apprenticeship training, entry-level training courses and special custom-made courses for industry and business. Colleges also administer TAFE centres, which operate from local high schools and community locations, providing primarily part-time and evening courses in a range of community and adult education areas.

TAFE International, as a commercial operation, is responsible for the recruitment of overseas students and coordination of international training projects. It also oversees the acquisition of curriculum and coordinates technology-based program delivery for students in remote regions of the State.

Tertiary Institutions

Western Australia has four government universities. A private university, the University of Notre Dame Australia, commenced receiving students during the early part of 1992.

Western Australian university study programs offer graduate and postgraduate diplomas, bachelor, honours, masters and doctoral degrees. Bachelor degrees vary between three and six years duration, some requiring successful completion of the first year of

another course, others the completion of that course. Honours degrees generally entail an additional year of study.

Study programs are designed to provide students with the degree of specialisation necessary for an increasingly demanding technological world. All courses are accredited and listed in the Register of Australian Tertiary Education. All universities seek to foster strong links with the community by providing research and consultancy services, implementing training programs for industry and offering a broad variety of community courses.

The attraction of full fee-paying overseas students has become increasingly important to universities. Most of these students come from Malaysia, Singapore, Hong Kong, Indonesia and the People's Republic of China, although a large number of other countries are represented.

7.5 – UNIVERSITIES: NUMBER OF STUDENTS

Field of study	*1993*	*1994*	*1995*
Agriculture	801	854	843
Architecture	869	902	951
Arts	12 850	13 701	14 239
Business	12 930	12 863	13 585
Education	7 500	7 068	7 054
Engineering	3 632	3 610	3 797
Health	7 039	7 138	7 237
Law	1 696	1 835	1 946
Science	7 769	8 071	8 279
Veterinary Science	362	348	342
Non-Award	12	11	21
Total	**55 460**	**56 401**	**58 294**

Source: Department of Employment, Education and Training

Edith Cowan University

Edith Cowan University is a multi-campus institution with over 19,000 students and 250 programs of study. Academic courses are offered at the Churchlands, Mount Lawley, Joondalup and Bunbury Campuses. The University's Claremont Campus is used for a variety of non-teaching purposes, including conferences. The Western Australian Academy of Performing Arts is an academy of the University and is located on the Mount Lawley Campus.

The University is vocationally orientated, providing multi-level courses to meet specific community needs for 30% of the State's university students. The courses are flexible in approach to entry requirements, teaching methods, modes of study and design. Women represent 63% of the total student body.

University of Western Australia

The University of Western Australia was established in 1911 and teaching began in 1913. Courses are offered through eight faculties; namely Agriculture, Arts, Economics and Commerce, Education, Engineering and Mathematical Sciences, Law, Medicine and Dentistry, and Science. There are more than 50 teaching departments as well as many research and teaching centres, including government-selected and supported cooperative research centres.

Apart from undergraduate students, others undertake postgraduate study and research. Out of an enrolment of about 13,000, 10% are international students. The University attracts students from Singapore, Malaysia, Indonesia, Hong Kong and other Asian nations and from as far as America, Europe and Africa. Besides its international recruitment program, the University's International Centre has developed student and staff exchange relationships with overseas institutions.

The University campus, with its five residential colleges and hall of residence, spreads over some 65 hectares by the Swan River. The University Library, which has 14 subject libraries, is linked by computer to other university libraries and databases throughout the world, including AARNet and Internet. Also on campus are an art gallery, a museum of geology and a museum of anthropology, five theatres, a music auditorium and Winthrop Hall. On-campus venues are used by arts practitioners from within and outside the University, particularly during the annual Festival of Perth.

Murdoch University

Established in 1973, Murdoch University is situated 13 kilometres from Perth, and occupies over 220 hectares. Degree programs in Arts, Social Sciences, Commerce and Natural Sciences, and professional degrees in Education, Engineering, Law and Veterinary Studies are available. The University has key centres in Asian studies, hydrometallurgy and renewable energy.

Murdoch has Federal and State Government support to launch two regional campuses at Rockingham and Mandurah to accommodate demand in these rapidly growing areas. The Master Plan for the Rockingham campus has been launched with construction expected to be completed by 1997.

On campus, accommodation is provided for 430 students. The Student Village provides self-service accommodation with each student having a single study/bedroom.

Curtin University of Technology

Established by the Federal Government as a university in 1987, Curtin became the first university of technology in Australia, developing from strong foundations during two decades as the former Western Australian Institute of Technology (WAIT). Curtin University offers a comprehensive range of undergraduate and postgraduate courses to nearly 22,000 students.

The majority of courses are offered through the University's main campus in Bentley. Podiatry, occupational therapy and physiotherapy are taught at the campus adjacent to the Royal Perth (Rehabilitation) Hospital Annex in Shenton Park. A new Joondalup campus was established in 1993 through the University's link with the Australian Institute for University Studies (AIUS). A number of Curtin accredited business, health sciences and mass communication courses are available at this campus. The Graduate School of Business is located in the heart of the Perth central business district and offers a range of graduate commerce courses.

Specialist campuses in country areas include the Muresk Institute of Agriculture in the Avon Valley near Northam and the Western Australian School of Mines at Kalgoorlie.

Curtin's four teaching divisions are :

- the Division of Humanities,
- the Curtin Business School (CBS),
- the Division of Engineering and Science, and
- the Division of Health Sciences.

The Centre for Aboriginal Studies is committed to higher education that furthers the advancement of Aboriginal and Torres Strait Islander values, relevant control and the achievement of equity through culturally appropriate programs. The Centre offers a number of courses in areas as diverse as management and health studies.

Western Australian School of Mines

The Western Australian School of Mines is a branch of Curtin University, comprising the Departments of Mineral Exploration and Mining Geology, Minerals Engineering and Extractive Metallurgy, Mining Engineering and Mine Surveying. It also offers courses in science and mineral economics. Students may study for awards from the Associate Degree, the Bachelor of Science or Engineering, course work or research Masters degrees, to the Doctorate by research.

Legislation passed through Parliament in September 1996 to amalgamate the Western Australian School of Mines with the former independent Kalgoorlie College to form Curtin University of Technology – Kalgoorlie campus. Taken together, the Western Australian School of Mines and the former Kalgoorlie College will establish the Kalgoorlie campus as a more diversified educational resource for the Kalgoorlie-Esperance region.

Muresk Institute of Agriculture

Muresk Institute of Agriculture is located near Northam. The campus has a range of teaching and research facilities, including a 1,800 hectare farm, laboratories, glass and tunnel houses, a library and information service, video conferencing centre and the Clyde Smith Rural Management Centre which houses a wide range of microcomputer hardware and software.

Muresk conducts research across the spectrum of agriculture from agricultural technology and management to marketing and agricultural business structures. Students may study for awards from Associate Degree in Agriculture, a Bachelor of Agriculture or Horticulture, Graduate Diplomas in Agribusiness or Landcare, Master by research to Doctorate by research. The Centre for Agribusiness Marketing and the Muresk TAFE Extension Service are based at Muresk. They offer a range of training services and short courses to government and industry groups.

The University of Notre Dame Australia

The University of Notre Dame Australia was established as Australia's first Catholic university by Act of Parliament in 1989 and enrolled its first students in 1992. Its main campus is in Fremantle and it has a second campus in Broome. In 1997 it will enrol more than 1,000 students in undergraduate and postgraduate degree courses in its five Colleges of Arts and Science, Business, Education, Law and Theology.

Notre Dame, the only private university in Western Australia, is committed to 'the advancement of learning and knowledge within a context of Christian faith and values'. It pursues 'high educational standards and seeks to graduate students noteworthy for their beliefs, values and practices and for their outstanding professional skills and knowledge'.

The Tertiary Institutions Service Centre (Inc)

The Tertiary Institutions Service Centre (Incorporated) processes applications for admission to undergraduate and Diploma in Education courses at the four government universities in Western Australia and carries out such other functions as agreed by those universities. Applicants seeking admission apply through a joint system operated by the Centre. Applicants list up to four preferences from all undergraduate courses and up to three preferences for the Diploma in Education courses. Offers are made by the universities on the basis of a ranked order for each course.

The Centre also conducts a mature age testing program (Special Tertiary Admissions Test and is responsible for the Western Australian Universities Foundation Program for overseas students.

Commonwealth Government Assistance

The Commonwealth Government provides supplementary finance to the State and is responsible for the total funding of the four government universities. The Commonwealth also has special responsibility for education relating to Indigenous people and for migrants, as well as to provide assistance for students.

Assistance for Isolated Children Scheme

The Assistance for Isolated Children scheme assists families whose homes are too remote for normal daily access to government schools. It provides allowances for eligible students living away from home to attend school, for students studying by correspondence or when a second home is maintained for student occupation. The scheme also covers children regarded as isolated owing to medical disability.

AUSTUDY

AUSTUDY provides financial help to eligible students in approved secondary and tertiary courses. Normally, students must be 16 years or older and studying full time. AUSTUDY allowances are subject to income and assets tests. Higher degrees, such as Masters and Doctorate, are not covered by AUSTUDY.

ABSTUDY

ABSTUDY (the Aboriginal Study Assistance Scheme) provides financial assistance to all eligible Indigenous students and was introduced as part of the Commonwealth Government's funding to help Indigenous people achieve educational, social and economic objectives. There are three components to the ABSTUDY scheme: Schooling, Tertiary, and Masters and Doctorate.

Australian Postgraduate Awards Scheme

The Australian Postgraduate Awards (APA) with Stipend scheme assists the participation of Australian postgraduate students in research training programs by enabling persons of exceptional research promise to undertake a higher degree. It is the principal program of Government support for promising researchers, and awards are available in all fields of study.

The APA with Stipend element incorporate the former Australian Postgraduate Research Awards and Postgraduate Course Awards.

State Government Assistance

The State Government provides a 'boarding away from home' allowance to supplement the isolated children's allowance paid by the Commonwealth Government. An allowance of $500 per annum is paid to an isolated child who is obliged to live away from home to attend school.

One thousand dollars per annum is currently provided to students who board at agricultural colleges in Western Australia and do not receive the allowance for isolated children.

The State Government Secondary Assistance Scheme is also available to eligible parents who have children in Years 8 to 12 aged under 16. These schemes aim to assist families on low incomes to meet the costs of books, materials and clothing.

The Needy Child Grant of $110 per annum is to assist eligible families with payment of fees for five year old children attending community based pre-schools.

Office of Non-Government Education

On 1 July 1996, the former Western Australian Office of Non-Government Education was abolished as a separate State Government department. Its services continue under the Office of Non-Government Education established within a new Department of Education Services. These services include coordination and provision of advice on policy and resource issues in the non-government education sector, administering State government funding of non-government schools, and registering non-government schools. A new service, previously provided by the Education Department, is the registration of the providers of education services to full-fee overseas students.

Funding of non-government schools is provided by means of a direct per capita grant for each student enrolled. The grant incorporates a needs component and separate rates apply to pre-primary, primary and secondary students. The base per capita grant is supplemented for special education students.

Assistance is also given to non-government schools by way of low interest loans and interest subsidies on moneys borrowed to help meet expenditure on schools' capital development projects. This includes school site acquisition and, at locations north of the 26th Parallel, the provision of teacher accommodation. The State Government also provides an annual subsidy to the Western Australian Catholic Education Office to supply school psychology and guidance services to a majority of non-government schools, both Catholic and non-Catholic, located throughout the State.

New non-government schools receive small grants to purchase primary school reading materials and other basic equipment and materials.

Additionally, other allowances and benefits which are paid to support students' attendance at non-government schools include boarding away from home, and text book and clothing allowances. Non-government school teachers employed at schools in the north of the State are eligible for a travel concession. These allowances and benefits are administered by the Education Department.

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Schools, Australia (4221.0)

Culture And The Arts

Chapter 8

CULTURE AND THE ARTS

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Chapter 8

CULTURE AND THE ARTS

This chapter was prepared in consultation with the following organisations: Department for the Arts, Screen West, Library and Information Services of Western Australia, Art Gallery of Western Australia, Western Australian Museum and the Festival of Perth.

Culture and the Economy

Australian Bureau of Statistics Household Expenditure Survey figures demonstrate the importance of the Arts to the Western Australian economy. The figures indicate that the domestic market for arts, cultural and entertainment goods and services in Western Australia in 1994 was approximately $930 million.

Data obtained from the 1991 Census indicates that the total salaries paid to workers in Western Australia's arts and cultural industries was $415.7 million. However, this figure is likely to be higher as the Census excludes those whose 'main job' was in other industries. During 1994, the total value of goods and services supplied to the Australian economy by the Western Australian arts and cultural industries was $1.6 billion. The breakdown of this amount is shown in the following table.

8.1 – VALUE OF GOODS AND SERVICES SUPPLIED BY INDUSTRY, 1994

Industry	*Estimated value* $'000
Motion picture industry	64.3
Other performing and non-performing arts	322.7
Library, museums and art galleries	67.3
Publishing	371.2
TV and audio equipment	51.8
Architectural and advertising services	737.7
Total	**1 615.0**

Source: Department for the Arts

Two significant components of the cultural industry, Film and Video Industries, and Radio and Television, were surveyed by the Australian Bureau of Statistics during 1993–94. A summary of the information obtained from the survey is included in the following table.

8.2 – FILM, VIDEO, RADIO AND TELEVISION, 1993–94

	Businesses at end of June	Employment at end of June	Wages and salaries	Gross income
	no.	no.	$m	$m
Film and Video Production	58	180	4.3	15.5
Television Services	7	815	31.1	205.4
Radio Services	23	591	21.0	56.7

Reference: Catalogue No. 8679.0 and 8680.0

Work in Selected Cultural/Leisure Activities

The Australian Bureau of Statistics undertook a survey of Culture and Leisure Activities in March 1993. This survey found that during the 12 months ended March 1993:

- 156,600 people or 12.0% of the Western Australian population aged 15 years or more were involved in selected cultural or leisure activities; in addition
- A further 122,900 people were involved in some form of hobby activity involving either art/craft activities, writing/publishing or music.

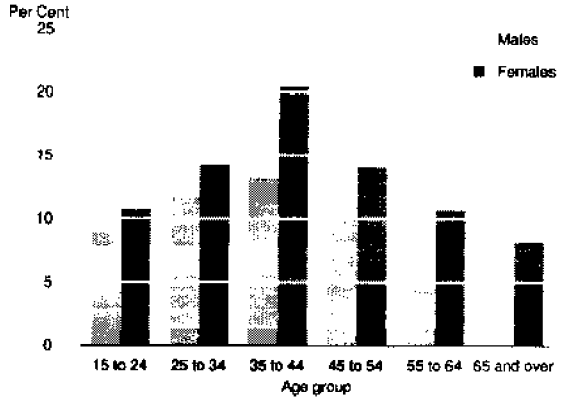
8.3 – PERSONS INVOLVED IN CULTURE AND LEISURE ACTIVITIES, MARCH 1993

	Paid involvement only	Unpaid involvement only	Paid and unpaid involvement	Total persons involved
	'000	'000	'000	'000
Males	9.2	43.8	15.2	68.2
Females	13.0	59.2	16.2	88.4
Total	22.1	103.0	31.4	156.6

Reference: Catalogue No. 6281.0

The survey also found that females had a higher participation rate than males for all age groups and for all categories of employment. For example, 13.6% of females over the age of 15 participated in some form of culture and leisure activity compared with only 10.5% of males.

DIAGRAM 8.1 - CULTURE AND LEISURE ACTIVITIES
PARTICIPATION RATE
March 1992-93



Source: Catalogue No. 6281.0 (Unpublished Data)

The Western Australian Department for the Arts

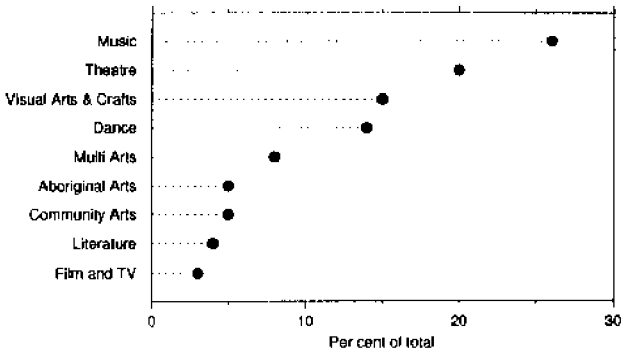
The Western Australian Department for the Arts was established in 1986 to advance the cultural development of Western Australia. The Arts Portfolio embraces the statutory authorities of the Western Australian Museum, the Art Gallery of Western Australia, the Library and Information Service of Western Australia (LISWA) and the Perth Theatre Trust. The Arts Portfolio also includes Screen West.

Central to the role of the Department is support for the range of arts organizations and creative cultural practices that enrich the lives of Western Australians. The Department also has an important role in the provision of advice to Government to assist in the formation of policies to promote the arts in Western Australia, and is responsible for administering Western Australia's Arts Grants Program. During 1992–93, total grants of $10.4 million were provided.

During the course of 1995, several initiatives were undertaken to change the way that regional arts funding was managed. Under a new scheme, Country Arts WA took over aspects of regional arts development from the Department for the Arts. This Perth-based agency has a well established and strong regional board of management with strong regional representation throughout the State. With a total investment of State funds of $760,000, it became one of the major arts organisations to receive funds.

During 1995 the WA Arts Portfolio also implemented new procedures to assist regional local government in planning for cultural development. Under this policy the Department for the Arts provided funding towards cultural plans which would form the basis of partnerships between local government and the Arts Portfolio.

DIAGRAM 6.2 - ARTS GRANTS BY ARTFORMS
1992-93



Source: The Department for the Arts

Screen West

Screen West is responsible for assisting the development of a diverse and commercially successful film industry in Western Australia, as well as creating an active and informed screen culture.

Screen West's main focus is to provide development loans and strategic investments as a means of bringing marketable film and television projects to fruition. Through these funding mechanisms Screen West supports a diverse range of projects including feature films, television series, documentaries, telemovies, short films and mini-series. Among the productions assisted were Barron Entertainment Ltd Telemovies' *Natural Justice*, the children's series *Sweat*, and Gripping Film's animation series *Bohtales*. Documentaries included Wildfilm Australia's *Legacy of the Wanton Boys*, Excalibur Nominees' *First Person* documentary series and Reel Images' documentary series, *The Nature of Healing*.

The agency also administers the Lotteries Commission Film Incentive Schemes, which collectively provide for payments totalling approximately $2 million each year. These Schemes support the employment of Western Australian film practitioners, flexible production financing of commercial film and television projects and the provision of awards for excellence.

Total assistance by Screen West during the course of 1995–96 amounted to $3.7 million.

Library Board of Western Australia

The Library Board of Western Australia is an accountable authority which, through the Library and Information Services of Western Australia (LISWA), is the custodian of the State's collection of library, information and archival resources.

The State Reference Library, situated in the Alexander Library Building in the Perth Cultural Centre, provides extensive and varied reference and information services covering arts and literature, social sciences, information technology, business information and science and engineering. There is also an extensive map collection, a music lending and listening service and a lending collection of films and videos. The library is open seven days a week.

The J.S. Battye Library of Western Australian History is also located in the Alexander Library Building. It has responsibility for collecting and preserving documentary materials which record the culture and heritage of Western Australia and to make these materials available for research. The collections include printed records, pictorial materials, manuscripts, archival film and video and oral history tapes and transcripts. Current information about government and community organisations and services is maintained and provided as an information service by Infolink.

8.4 – THE LIBRARY BOARD OF WESTERN AUSTRALIA, 1995–96

	No
Staff (a)(b)	277
Associated public libraries	228
Books—	
Total circulation stock (a)	2 240 411
Public libraries exchange program—	
Volumes despatched	418 137
Inter-library loan requests arranged	39 657
Enquiries in reference Library	205 559
Visitors to reference library	458 245

(a) At 30 June 1996.
(b) Number of full-time staff plus full-time equivalent units of part-time staff.
Source: LISWA

The provision of public library services is a partnership between LISWA and local government authorities. These arrangements are specified by the terms of the *Library Board of WA Act (1953–1981)*. Through its Public Library Services Program, LISWA provides the bookstock and other resource materials for public libraries throughout the State and maintains these collections by exchanging the stock regularly. In addition, LISWA provides extensive catalogues and indexes, support services in the form of special collections, an inter-library loan service, training, consultancy and regional subsidies for the public library system.

The Consolidated Revenue Fund allocation to the Library Board of Western Australia, for 1995–96, was $26.4 million.

Western Australian Museum

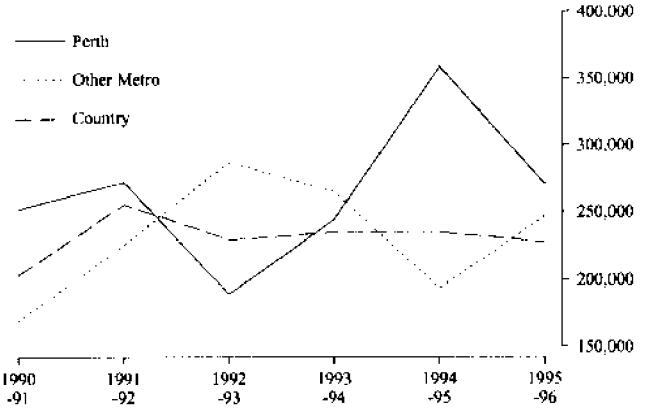
The Western Australian Museum, which celebrated its hundredth anniversary in 1992, has its headquarters and principal exhibition centre located in the Perth Cultural Centre. It has established branches in Fremantle (Fremantle History Museum, which includes Samson House, and the Western Australian Maritime Museum, which incorporates the Historic Boats Museum), Albany, Geraldton, and Kalgoorlie.

Major Achievements in 1996

The Fremantle History Museum opened *A New Australia: Post War Migration to Western Australia*. This exhibition was brought together through the efforts of Museum staff and over 200 members of the community who contributed artefacts, photographs and stories. Community Access Programs have continued to provide an opportunity for community members to mount an exhibition relating to their own cultural group; exhibitions from the Italian, El Salvadorian and Hungarian communities have been produced. Travelling exhibitions on the *Greeks in Australia, Edith Cowan, Children of the Dream* and *Women with Attitude* have been shown.

The West Australian Maritime Museum played host to *The Mary Rose*. This exhibition, depicting life and death on one of Henry VIII's warships, was an overwhelming success. Another exhibition, *On the Waterfront; Artists, Actors and Wharfies*, looked at the artistic life which arose around the waterfront.

DIAGRAM 8.3 - VISITORS TO WESTERN AUSTRALIAN MUSEUMS



Source: Western Australian Museum

Planning for the Museum's redevelopment continues, including the refurbishment of Hackett Hall and the former State Library building and the creation of a new entrance to the Museum opening onto the Cultural Centre. Major exhibitions have included *Wool in the Australian Imagination, BBC Wildlife Photographer of the Year, An Ideal City, Treasures of the Egyptian Collection* and *Tibetan Butter Sculptures*.

Regional Museums undertook an active program of exhibitions including *Labour and Love, Edith Cowan* and *Biodiversity*. Planning is underway for a new regional museum for Geraldton and new exhibitions at both Albany and Kalgoorlie.

The Art Gallery of Western Australia

The mission of the Art Gallery of Western Australia is to develop and present the best public art collection in the State and the pre-eminent collection of Western Australian art, and to increase the knowledge and appreciation of the art of the world for the enjoyment and cultural enrichment of the people of Western Australia.

This is achieved through an extensive program of exhibitions selected from the Gallery's permanent collection of art works together with touring international and national exhibitions. To complement these exhibitions the Education Section provides a comprehensive program of activities for children, students and adults with lectures, films, videos and creative classes, together with tours presented by Voluntary Gallery Guides.

The collection policy of the Gallery places emphasis on the acquisition of Western Australian art, Australian and international contemporary art, and Aboriginal art.

During the 1995–96 financial year, the total attendance at the Art Gallery of Western Australia was 343,986.

Exhibitions in 1995–96

Major exhibitions during 1995–96 included:

- *Jimmy Pike – Desert Designs 1981–1995;*
- *Moet & Chandon Touring Exhibition;*
- *Brett Whitely – the Retrospective;* and
- *Arthur Streeton 1867–1943.*

Western Australian art was the feature of the exhibitions *Urban Belonging: The Raw Edge, Year 12 Perspectives* and *Howard Taylor.*

International exhibitions displayed were the *Weimar Republic: German Prints and Drawings 1918–1932* and *Magnum Cinema: 50 Years of Photography*.

In 1997 several important exhibitions are being shown, such as *Daughters of the Dreaming – Sisters Together Strong*, which features traditional and contemporary art by Aboriginal women, *Inside the Visible* from the United States, and the *Tom Roberts Retrospective*.

During 1996 some structural changes took place in the Gallery to create a sense of openness and extend the display area. This has enabled new exhibitions to be installed highlighting the breadth of the State art collection and has increased the area dedicated to Aboriginal art. Changes in displays in the Centenary Galleries focus on Western Australian art from the period 1820 until the present.

Bunbury Regional Art Galleries

A full program of exhibitions, activities and outreach services to communities and schools in the region is maintained. Art Club for children has been expanded with the addition of a Gallery Art School for adults and the artist-in-residence program continues. *The Bunbury Biennale '95* was the highlight of 1995 attracting many of Western Australia's leading contemporary artists. *The South West Survey* continues to be a popular exhibition with artists from Mandurah through to Albany participating. Celebrations in 1997 mark the 10th Anniversary of the Bunbury Regional Art Galleries and the centenary of the building formerly a convent and chapel.

Attendance at the Bunbury Regional Art Galleries for the year 1995–96 was 17,815.

The Geraldton Art Gallery

The Geraldton Art Gallery was recently redesigned and refurbished, giving a greater opportunity for local artists to exhibit their work. A comprehensive program of exhibitions was displayed during 1995–96, including *Abrolhos South, The Braille Book, Guy Grey-Smith 'Landscapes of Western Australia'* and *An Aboriginal Perspective*. A touring exhibition of Midwest artists *Port to Port* was organised by the Gallery for a 12 month tour of Western Australia, with financial assistance from Art on the Move. The outreach program continues to be assisted by the Art Bus, which improves accessibility for outlying centres by providing free transport to the Gallery. Other activities in the Gallery's program include lectures, artist-in-residencies, workshops and co-operative events with the Museum.

Total attendance at the Geraldton Art Gallery in 1995–96 was 20,374.

WEST AUSTRALIAN BALLET

West Australian Ballet is the premier performing arts organisation in Western Australia. Founded in 1952 by Madame Kira Bousloff, the Company has a distinctive style and a quality that has won national and international critical acclaim.

The company's reputation is based on its unique ability to excel in both traditional and new classical ballets, and it is renowned for its immaculate stage presentation and the outstanding talent of its classically trained dancers.

Over recent years the Company has grown rapidly in artistic stature, due to the challenging standards and the vision of its Artistic Director, Barry Moreland.

Based in Perth and resident at His Majesty's Theatre, West Australian Ballet is highly regarded for its progressive policy in commissioning Australia's leading creative artists in design, music and choreography. As a result the Company has become a showcase for the country's finest talent.

Throughout the year West Australian Ballet offers an extensive program of works, ranging from full length classical ballets to innovative new works, and is the only State dance company in Australia that has an official partnership with its State symphony orchestra.



The major Perth-based annual seasons scheduled for February, May and October, are accompanied by extensive regional, national and international touring and a well established education program that brings thousands of young Western Australians to the theatre each year.

With the commencement of an international touring program in 1990, West Australian Ballet has become a major cultural ambassador for Australia. Recent international tours include those to China, Japan, Indonesia, Taiwan and the Philippines — these tours often linked to major trade promotions.

Cinderella
Courtesy: Ashley de Prazer

The 1996 Festival of Perth

The Festival of Perth is the oldest and largest annual international multi-arts festival in the southern hemisphere. The 44th annual Festival from February 16 to March 10, featured 760 performances and events with over 1,007 artists from 19 countries and had an attendance figure of 565,000. The Festival also featured 435 free events, embraced five world premieres and 22 Australian premieres. The Lotteries Commission Film Festival featured 18 international films at the outdoor venue, Somerville Auditorium, from November 27 to March 31.

Eighteen Australian companies presented works at the Festival, including :

- The Sydney Symphony Orchestra;
- West Australian Symphony Orchestra;
- Bangarra;
- Marrugeku;
- The Black Swan Theatre Company;
- Barking Gecko Theatre Company;
- Perth Theatre Company;
- Theatre West and Deckchair Theatre.

Twenty-six international media organisations covered the Festival. On the local, regional and national front, 135 media organisations broadcast and published over 990 stories about the Festival.

Highlights of the 1996 Festival included Lotteries Festival Finale, featuring the dazzling pyrotechnicians from France, Groupe F and the Australian premiere of Grupo Corpo from Brazil. Another popular show was Eironos, a Festival commission featuring Chrissie Parrott Dance Company from Australia and Jean-Pierre Perreault from Canada.

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Sport And Recreation

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SPORT AND RECREATION

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Chapter 9

SPORT AND RECREATION

Compiled from the Ministry of Sport and Recreation Annual Report 1995–96

Sport

Ministry of Sport and Recreation

The Ministry of Sport and Recreation's mission is to enhance the lifestyle of Western Australians through their participation and achievement in sport and recreation.

The Ministry acts in a supporting and enabling role which allows independent community-based sport organisations to successfully manage and make informed decisions on the strategic directions or services required by members.

This requires quality leadership from volunteers who are skilled, informed and aware of the issues influencing their organisation and the wider community.

The Ministry assists sport administrators by providing up-to-date information to assist them plan for the future and meet the needs of various target markets.

Sport Research

Research is considered to be vital in providing leadership to the sports industry in Western Australia. The emphasis on research, promoting awareness of research findings and implementing recommendations has increased.

A report entitled *Sport: X–Generation or Degeneration?* explored young people's values and attitudes towards participation in competitive sport. The emphasis on the competitive nature of sport is a barrier to participation for some young people, but young people do see many positive benefits which can be gained through sport.

The consultative phase with State Sporting Associations and other stakeholders regarding the Regional Development Officers and Country Sport project was implemented in co-operation with the Aboriginal and Regional Services Division.

Four projects were started during the year and will be completed in the next 12 months.

Firstly, 'The Status of Sport in Western Australia' seeks to identify a point of reference for sport in this State. This project will complement the 1996 Sport Census and work by the Australian Bureau of Statistics (ABS) and the Sport and Recreation Ministers' Council Statistical Working Group. It will address issues such as management, planning, achievement, participation, facilities, school sport, events and funding.

The 'Impacts of National Leagues on Western Australia Sport' research project will provide sporting organisations with information about the impact of National Leagues on State delivery structures. It assesses the impact of National leagues on participation levels, financial status of sports, State or regional competitions and career paths.

It is hoped the 'Metropolitan Students and Community Sport' project will help community sporting organisations to increase student participation in sport.

The fourth project addresses the level and nature of the involvement of local government personnel in junior sport to help identify training and support needs.

Sports Consultancy

Financial Assistance

The Sports Lottery Fund, managed by the Sports Consultancy Unit, provided valuable financial assistance to the sport industry. In 1995–96 the Ministry of Sport and Recreation received an allocation of 2% from lotteries sales, more than $6.95m.

The State government requires accountability for financial investment in sport and an expected return on its investment. These expectations must be reflected in the reporting and financial statements by sports.

Term Funding Agreements moved into the second year of operation. The performance-based outcomes established by the sports enable them to devise the most pertinent strategies. Rugby Union moved to a Term Funding Agreement this year.

Other State sporting associations continue to access funds through the Development Plan (60 sports) and Category Funding (40 sports) programs. Sport service agencies, such as Sports Medicine Australia, Australian Society of Sports Administrators and the Western Australian Olympic Council, receive funding assistance for their development through the Sports Lottery Fund.

Planning

Planning is an important objective for the Sport Consultancy Unit to achieve with sport associations. The need for associations to prepare and implement strategic, operational and business plans is a vital component for a sport to prosper.

Planning involving organisational structures and operational systems for sport was undertaken with Athletics, Soccer, Swimming and Netball. A degree of planning involvement occurs with most sports as part of the Development Plan or Term Funding Agreement documentation process.

Management Development

Sport management has become more complex. Through the Ministry of Sport and Recreation the Government financially supports management personnel within sport to assist the creation of well-managed associations and underpin the efforts of volunteers. At times, there are difficulties for some State sporting association boards to reconcile the role of voluntary boards with the responsibilities of paid staff. The Ministry is encouraging associations to support boards that leave the operational matters to staff while assuming the responsibility for setting the policy and direction that will set their sport on a sure path.

Support of management personnel by the Consultancy staff was provided through regular contact, written information, and advice.

Management development at club level is supported through the Volunteer Involvement Program.

Asia

The Ministry supported the Asian Sporting Relations Council in the continued development of sporting links in the Asian region and on the Indian Ocean rim.

Visiting sporting delegations included those from Thailand, Malaysia, Indonesia, South Africa and Japan.

State Sports Awards

Over 600 Western Australians were recognised by the Ministry for their achievement in representing Western Australia for the first time in a sporting team or competition.

AUSSI MASTERS SWIMMING WA BRANCH INC

Contributed by AUSSI Masters Swimming WA Branch Inc.

From humble beginnings in 1977, when eight people in Carine met and formed the Western Australian organisation that exists today, AUSSI Masters Swimming has become a way of life for its 1,300 plus members. Membership is open to males and females. It is interesting to note that the largest represented age group throughout Australia is 35 to 39 year old females.

The stated purpose of AUSSI is: 'to encourage adults, regardless of age or ability, to swim regularly in order to promote fitness and improve their general health'.

AUSSI's motto is 'fitness, friendship and fun', and the ages of its members range from 20 to 91 years and over. As long as a prospective member can get from one end of the pool to the other, the coach can assist with stroke and technique correction. Even the slowest swimmer is encouraged to participate.

AUSSI also caters for anyone who may have a physical disability. Medical Disability Certificates, signed by a Doctor, are recognised so that anyone who may have a problem, for example with a limb which stops them from doing any stroke correctly, can still compete.

Most of the 30 clubs throughout the State have a Coach who encourages members to develop programs at their own pace. Many clubs have one night a week set aside as a 'club night' when an organised swim program takes place. Other times each week are designated as training sessions.

Dr Kay Cox, Director of Fitness and Education, of the Western Australian Branch has set up and piloted both Level 1 and Level 2 training courses for coaches. These courses, run alternate years, have been approved by the National Coaching Accreditation Council (NCAS) to ensure members receive the best advice available in training methods.

AUSSI hosts two major State Championships each year at which members can test themselves in competition. To prepare for this level of competition, interclub carnivals are organised by clubs on a quarterly basis, according to the annual program. Every swimmer who completes a swim is awarded points. Many people like the challenge such competitions offer, while others swim to beat their own time and to enjoy the participation.

Most clubs involve themselves in the social activities as well, with regular 'happy hours', breakfasts or other occasions to enjoy each others' company.

AUSSI clubs operate from January to December each year. If the home pool closes in winter, alternative arrangements are made to swim in a heated pool elsewhere. The average cost for annual membership is $50, although each club's fees may vary slightly because of differing pool hire costs.

Once a person decides to join up they are given a registration number which is used for life throughout Australia. The membership fee entitles swimmers to certain public liability and personal accident insurance cover.

In the Perth metropolitan area, clubs are located at Armadale, Bayswater, Belmont, Carine, Mt Claremont (Superdrome 2), Fremantle, Gosnells, Guildford, Inglewood, Leeming, Maida Vale, Melville, Newman/Churchlands, Perth City (Beatty Park 2), Rockingham, Victoria Park (Somerset), Spearwood and Whitford (Craigie Leisure Centre 2). Country clubs operate at Albany, Bunbury, Carnarvon, Esperance, Exmouth, Geraldton, Karratha, Mandurah and Roebourne.



AUSSI Swimmers
Courtesy: AUSSI Masters Swimming WA Branch Inc.

Sport Development

Junior Sport Development Unit

The Junior Sport Development Unit (JSDU) strives to have junior sport recognised and valued by the Western Australian community as a vital part of its unique lifestyle, and as the entry point to a lifelong involvement in sport.

The Unit is committed to the co-ordination of strategies influencing the physical, organisational and human environments of junior sport and the wider community. These environments have a decisive impact on issues of access, delivery and the culture of junior sport. The JSDU operational plan focuses on:

- Public education,
- State sporting associations,
- Leadership development,
- Policy influence,
- Regional Western Australia,
- Development of sport deliverers, and
- Local Government research and education.

Challenge, Achievement and Pathways in Sport (CAPS)

CAPS is a community based leadership program (14–21 years) to improve the volunteer base within clubs and State sporting Associations. The program gives teenagers the opportunity to gain valuable skills and accreditation, encouraging them to remain involved in a sport beyond their participation days. The focus has expanded to include Education and Recreation Centres.

Sportsfun

Sportsfun is an AUSSIE SPORT youth leadership program. Sportsfun Leaders from Years 9 to 12 are trained in basic coaching skills which they use to teach sport skills and modified games to primary school children.

This year saw an increased commitment from schools and recreation centres, with more than 700 leaders trained and 3000 primary school children participating, compared with 407 and 2,358 in 1994–95

Sport It!

This program assists school staff to teach fundamental skills to primary and pre-primary children. As part of a commitment to improve school physical education programs, 60 district co-ordinators in Sport It! received in-service support. Further in-servicing of 14 regional districts, nine primary schools and four Aussie Sport Days provided professional development opportunities for more than 500 teachers.

Sports Attendance

The Australian Bureau of Statistics found, during 12 months ended March 1995:

- Australian Rules football was the most attended sporting event in Western Australia with 20.9% of the Western Australian population aged 15 years of age and over having attended at least one game;
- 13.0% of males and 4.7% of females in Western Australia aged 15 years and over attended at least one cricket match.

9.1 – SPORTS ATTENDANCE: MARCH 1995

Sport Attended	*Western Australia*		*Australia*	
	'000	Attendance rate %(a)	'000	Attendance rate %(a)
		MALES		
Australian rules	172.5	26.0	1 174.3	17.0
Rugby league	27.8	4.2	976.1	14.1
Cricket	86.2	13.0	830.9	12.0
Basketball	40.5	6.1	352.2	5.1
Soccer	27.6	4.2	374.4	5.4
Motor sports	35.7	5.4	342.1	4.9
Tennis	15.9	2.4	200.4	2.9
Rugby union	16.1	2.4	238.8	3.4
Netball	8.6	1.3	91.2	1.3
		FEMALES		
Australian rules	105.7	15.8	699.9	9.8
Rugby league	12.4	1.8	486.0	6.8
Cricket	31.3	4.7	334.9	4.7
Basketball	44.6	6.7	339.5	4.8
Soccer	13.2	2.0	184.4	2.6
Motor sports	10.5	1.6	109.4	1.5
Tennis	15.5	2.3	231.2	3.2
Rugby union	5.7	0.8	119.5	1.7
Netball	19.2	2.9	221.1	3.1
		PERSONS		
Australian rules	278.2	20.9	1 874.2	13.3
Rugby league	40.1	3.0	1 462.1	10.4
Cricket	117.6	8.8	1 165.9	8.3
Basketball	85.1	6.4	691.6	4.9
Soccer	40.8	3.1	558.8	4.0
Motor sports	46.2	3.5	451.5	3.2
Tennis	31.4	2.4	431.7	3.1
Rugby union	21.8	1.6	358.4	2.5
Netball	27.8	2.1	312.3	2.2

(a) Attendance rate. For any group, the number of people who attended a sporting event at least once during the year, expressed as a percentage of the civilian population of that group.

Reference: Catalogue No. 4174.0

Recreation

1995–96 was a period of review and assessment of key operational areas leading to re-focusing of some major projects.

The Recreation Division of the Ministry of Sport and Recreation maintained its commitment to providing information, support and education, with a majority of resources being channelled into education and resourcing.

The Division identified that to be successful in leadership it had to advocate strongly for the recreation sector so individuals and organisations recognised the significant role that recreation has in developing individuals and communities. It worked closely with other agencies to maximise the impact with client groups and to develop industry personnel.

There was continuing commitment to a range of projects facilities development (urban planning and development, facility design, management and planning), industry training, research and development, consultancy, awareness and promotion, seniors, and rails to trails.

Industry Development

The Ministry, in conjunction with the Institute of Recreation (WA) Inc staged the 1995 WA Touch Screen Systems Recreation Industry Awards. The award program underwent significant reform, including five new categories, to recognise excellence and innovation in a variety of industry sectors.

The awards demonstrate the rapid take-up and successful adaptation of contemporary business practices to the recreation sector. The awards will again be presented in 1997 and will incorporate the John Graham Fellowship.

Community Awareness

Wellness Day

Wellness Day was celebrated on 25 October 1995 by a record 108 Local Government Authorities. More than 250,000 people joined in the most successful Wellness Day.

The event has grown steadily since its inception in 1992. The continual raising of the community's awareness of the value of healthy-active lifestyles through sport and recreation has been encouraging.

Corporate Challenge

The 1995 Corporate Challenge is now providing excellent recreational opportunities for the people working in the Perth Central Business District. The program presented 12 activities, registered 449 teams and recorded in excess of 3,500 participants.

Seniors Development

Since the introduction of the Seniors Recreation Council (SRC), some important initiatives have been set in place to support the transition from a Ministry-dependent style of service to a volunteer-managed system.

With 31.4% of Western Australia's population over 45 years of age, the Seniors Recreation Council, supported by the Ministry, is playing a major role in the provision of recreation service to seniors in Western Australia.

State sporting associations and local government authorities are being encouraged to make their services more accessible to the ever-increasing seniors market.

The SRC co-ordinates the Have-A-Go-Day, which attracted 4,000 to Perth's Burswood Park, and reached 800 people through public and private sector pre-retirement lectures.

Regional and Aboriginal Services

The Regional and Aboriginal Services Division delivers the Ministry's objectives to country areas. It works closely with the other Divisions to create environments in which people have the skills and opportunities to participate in the sport and recreation activities of their choice.

The Division places great emphasis upon working with others in the community, such as government agencies, local government and community sport and recreation groups.

There are nine regions, with offices in Geraldton, Carnarvon, Karratha, Kununurra, Kalgoorlie, Albany, Bunbury and Northam.

Major achievements for 1995–96:

- Completion of research into the public perception of the Ministry's role in country areas,
- A three-fold increase in the number of development plans for country sport and recreation groups,
- The appointment of a full time Aboriginal Sport and Recreation Officer in the South West,
- Increase of 16% in Sports Lottery Fund-Country Package funding for country sport and recreation groups, and
- A total of $704,000 allocated to country people through direct Government grants and additional sponsorship.

Education and Information

Sports Injury Prevention

The Ministry continued to work with Sports Medicine Australia on the delivery of sports injury prevention courses. There were 642 participants in 1995–96, more than double the number of three years previously. This steady increase reflects the growing recognition of the need to prevent sports injuries.

Sportsfun

Sportsfun operated in five regions through schools and local government recreation centres. In all, 280 leaders provided their services to 1,400 primary school children. This compares with 140 leaders in 1994–95 and 925 participants. In the South West, the Leschenault Leisure Centre provided an innovative program involving 18 leaders and 37 children.

Community Recreation Officer Training

There were 25 students for the Community Recreation Officer Course in the Kimberley. The course is also offered in two metropolitan colleges.

Seniors

The Great Southern Region continues to provide a great deal of support to activities for seniors. This included the New Horizons Award, 12 camps and a variety of recreational experiences. In the Mid West support was provided to Seniors Week. In the Pilbara, three 'Have-A-Go Days' were held, attracting more than 259 participants.

Women's Sport

The Midlands Elite Enrichment Training Scheme, managed by the Women's Sport group, had 34 participants during 1995–96.

Aboriginal Sport and Recreation

There are five staff working full-time in Aboriginal sport and recreation funded from the Federal Royal Commission into Aboriginal Deaths in Custody report and two funded by the State Government. These are supported by five trainees. Pilot projects in the Pilbara and Midlands were discontinued after six months, due to limited funding. A new officer was appointed to the South West on a full-time basis.

Regional Games

The Central Wheatbelt Games in Merredin involved 16 local governments in 14 sports. There were 1,600 participants, up from 1,400 the previous year. The fifth Mid West Games in Geraldton attracted 3,000 competitors from 18 of the 19 surrounding local government areas.

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ABS Publications — *Sports Attendance, March 1995* (4174.0)

Other Publications — *Ministry of Sport and Recreation*, Annual Report 1995–96.

The Economy

Chapter 10

THE ECONOMY

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Chapter 10

THE ECONOMY

Contributed by Western Australian Department of Treasury.

Highlights

The Western Australian economy grew by 6.3% in real terms in 1995–96, following growth of 3.4% in 1994–95.

Net exports, business investment and private consumption made the most significant contributions to growth in 1995–96.

Employment continued to rise, growing by 1.8% in 1995–96. Nevertheless, after reaching a four year low of 7.0% in August 1995, the unemployment rate rose to 8.2% by the end of the year.

The outlook is for sustained growth in the Western Australian economy. In 1996–97, the economy is expected to grow by 5.8%, with net exports, business investment and private consumption continuing to make strong contributions. The pace of growth in domestic demand is expected to ease slightly, contributing to continued moderate inflation and wage outcomes.

The Economy 1995–96

The Western Australian economy grew by a strong 6.3% in 1995–96, following growth of 3.4% in 1994–95 and record growth of 9.3% in 1993–94.

From 1990–91 to 1995–96, the Western Australian economy has grown by 28.2%, compared with 17.5% for the national economy. Economic growth in Western Australia continues to out-pace that of all other States.

The sources of Western Australia's economic growth remain broadly based. Private consumption, net exports and business investment have consistently contributed to growth since the recovery commenced in 1991–92.

The following sections examine Western Australia's economic performance in 1995–96, both on the basis of Gross State Product (GSP) growth and on an industry basis.

Gross State Product

Gross State Product (GSP) provides the broadest measure of economic activity in terms of the value of an economy's output. GSP can be measured by two different methods — summing expenditures or aggregating factor incomes. Real expenditure based GSP is the measure referred to in this document and is the sum of all final expenditures in the economy. It includes private and public sector consumption and investment expenditures, changes in stock levels and net exports.

DIAGRAM 10.1
REAL GROSS PRODUCT GROWTH

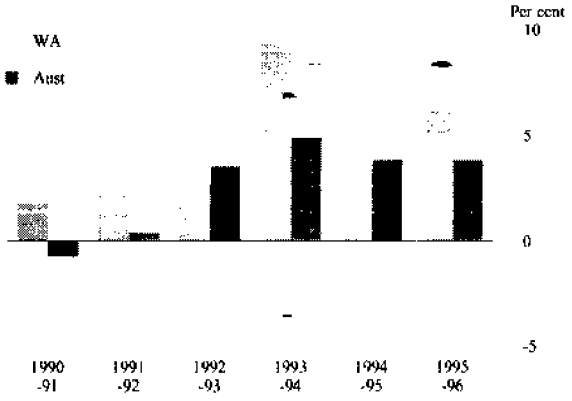
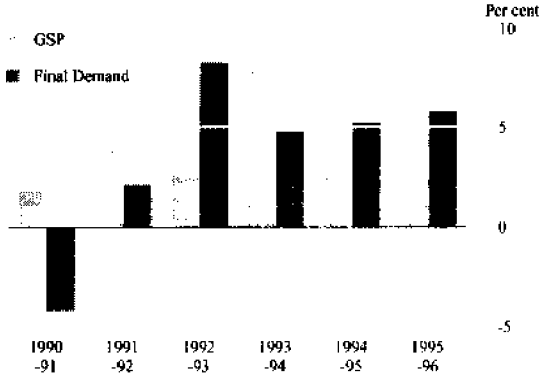


DIAGRAM 10.2
REAL GSP AND FINAL DEMAND GROWTH
Western Australia



Real Final Demand

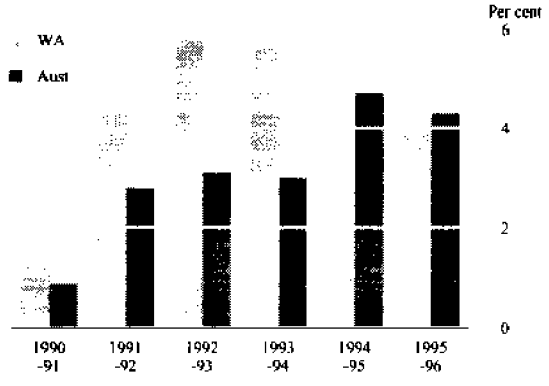
Real final demand is a sub-set of GSP, including only the domestic portion of the economy (i.e. private and public consumption and investment expenditure). It does not encompass the external sector (i.e. exports minus imports) or changes in stocks.

Consumption

Over the past five years, private consumption has made a substantial contribution to economic growth. In 1995–96, consumption expenditure remained resilient with growth of 4.2% in real terms. This is slightly stronger than the growth of 3.8% in 1994–95. Private consumption expenditure contributed 2.2 percentage points to GSP growth in 1995–96.

Diagram 10.3 illustrates that, in this economic upswing, growth in private consumption expenditure has been consistently strong. Over the past five years, consumption expenditure in Western Australia has grown at an annual average rate of 4.8%, higher than any other State except Queensland. This compares with growth nationally of 3.6% per annum over the same period.

DIAGRAM 10.3
PRIVATE CONSUMPTION EXPENDITURE
Real Annual Growth



The resilience of private consumption expenditure in Western Australia in recent years reflects strong growth in household disposable income and buoyant consumer confidence.

The growth in household disposable income has largely been due to strong employment growth. This has been augmented in recent years by a significant increase in the rate of participation in the labour force. Furthermore, mortgage servicing costs remained low relative to the late 1980s.

Growth in public consumption expenditure increased by 4.4% in 1995–96, after three years of modest growth. Over the past five years, public consumption has increased by an average of 2.5% per year.

Business Investment

The level of confidence in the Western Australian economy continued to be underpinned by strong growth in investment expenditure in 1995–96 — the fourth consecutive year of healthy growth. In real terms, Western Australia's total private investment rose by 16.0%, adding 2.4 percentage points to economic growth. Western Australia's investment performance has generally exceeded the national performance over recent years.

Strong business confidence is illustrated by the June 1996 survey conducted by Access Economics on investment plans in Australia. The survey indicated the total value of investment projects in Western Australia which are committed or under consideration rose by 49.3% in 1995–96.

In the June quarter, the Access Economics' survey identified an additional $1.8 billion in current and prospective investment in Western Australia. This was the second largest increase of all States and accounted for 30% of the increase in projects identified in the quarter. Western Australia accounted for nearly one quarter of the nation's total value of investment projects committed or under consideration. This highlights the prospects for the Western Australian economy over the medium term.

The National Australia Bank Quarterly Business Survey for the June quarter 1996 indicates general business conditions and expectations of profitability and trading performance in Western Australia are more favourable than in any other mainland State. The Westpac/Australian Chamber of Commerce and Industry Survey of Industrial Trends, the Telstra/Australian Chamber of Manufacturers Survey and the Yellow Pages Small Business Index all indicated that general business conditions in Western Australia through 1995–96 were more favourable than in any other State.

COMPONENTS OF PRIVATE INVESTMENT

Contributed by Western Australian Department of Treasury

Total investment includes the gross fixed capital expenditure of the private and public sectors. Private sector investment expenditure accounts for over 82% of investment in Western Australia and represents over 22% of GSP, compared with 17% nationally.

Within Private Sector Investment

Dwelling investment

Dwelling investment consists of expenditure on new dwelling construction, spending on alterations and additions to existing dwellings and real estate transfer expenses, which include various conveyance and transaction fees. Dwelling investment accounted for 27.4% of Western Australia's total private investment in 1995–96, compared with 34.4% nationally.

Business investment

Business investment comprises expenditure on both new and second hand assets, less sales of similar second hand goods, and accounts for almost 73% of private investment. Business investment can be disaggregated by the following asset types:

Equipment investment accounts for around 54% of Western Australia's private investment, compared with 47% nationally. Equipment investment includes purchases of mining machinery and equipment, office equipment, furniture and fixtures, vehicles, aircraft, ships, electrical apparatus and special tooling.

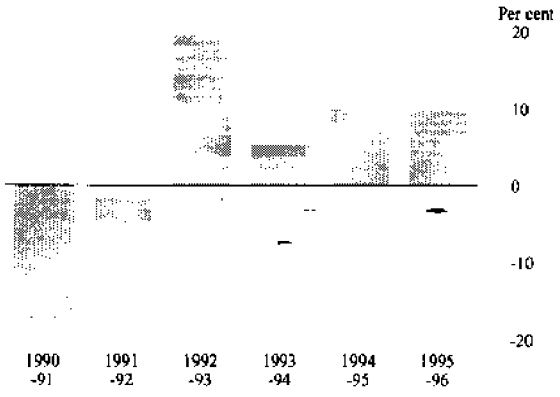
Non-dwelling construction covers such assets as industrial, commercial and non-dwelling residential buildings (e.g. hotels and motels), sewerage and water installations, land development, roads, railway lines, harbours and power and telephone lines. Around 19% of Western Australia's private investment is attributable to non-dwelling construction.

Public Investment

Investment spending by the public sector increased substantially in 1995–96. Total public sector investment rose by 41.3% in 1995–96, largely reflecting the upgrade of the Dampier to Bunbury gas pipeline, the sewerage infill program and the commencement of expenditure on the building of the Collie power station.

Total investment growth for 1995–96 was approximately 10%.

DIAGRAM 10.4
TOTAL INVESTMENT GROWTH
Western Australia



External Sector

Western Australia's external sector made a positive contribution to economic growth in 1995–96, in contrast to its negative impact on growth in the previous year.

The value of overseas exports increased by 10.1% in 1995–96. Overseas imports also rose in 1995–96 following a significant rise in the previous year. However, growth in the value of exports continued to exceed that of imports. As a consequence, net trade (ie exports less imports) made a substantial contribution to this State's economic growth, adding 3.0 percentage points to growth in 1995–96.

Growth in the Western Australian economy in 1995–96 was boosted by continued strong activity in the Asian region. Further strength in the economic outlook for many of these economies should ensure that the external sector remains a significant contributor to the Western Australian economy.

Industry Analysis of Growth

The mining sector remains a major force behind Western Australia's economic growth. The value of mineral and energy production in Western Australia rose by 10.3% to $15.3 billion in 1995–96, to represent more than a quarter of the State's GSP. The rise was mainly attributable to a strong rise in the value of production of petroleum products, gold, iron ore and nickel.

Production increased for most minerals during the year, the most notable exception being base metals. Significantly, the composition of mineral resource production continues to diversify. Western Australia is a world leader in the production of industrial grade diamonds, alumina, iron ore and mineral sands, and now produces a significant proportion of the world's gold, nickel and liquefied gas.

Growth in the manufacturing sector has also increased in recent years, rising from 10.2% of GSP in 1994–95 to an estimated 11.0% in 1995–96.

A key feature of the strong expansion in Western Australia's manufacturing base has been the growth of elaborately transformed manufactures (ETMs).

ETMs include manufactured items such as transport equipment, industrial machinery and electronics. The emergence of these activities has been facilitated by Western Australia's relatively low input costs and close proximity to the rapidly growing Asian markets.

The relative size of the services sector, which includes industries such as finance, construction, transport and communication, has also increased. The agricultural sector has declined in prominence in recent years.

The tourism industry is becoming increasingly important in Western Australia's economic growth and export earnings. Employment in the tourism and recreational industry has been growing steadily over the past five years at an average rate of around 4.9% per annum, the third highest growth of all industry sectors.

Employment in tourism and recreational services rose by 1.9% in 1995–96 following a substantial expansion in the previous year.

Labour Market

Conditions in the Western Australian labour market continued to improve in 1995–96 in line with the strong economic growth. In particular, employment growth reached 1.8% in 1995–96 following two years of particularly strong employment growth.

Western Australia's labour market recovered from the early 1990s recession more rapidly than any other State. Since the recession, employment has grown by 14.0%. This is the second strongest expansion of all States after Queensland and compares favourably with the national expansion of 9.2%.

Despite strong employment growth, the unemployment rate has begun to stabilise after falling from a peak of 11.4% in January 1992; this reflects the growing numbers in the labour force. The rate of unemployment in Western Australia averaged 7.6% in 1995–96, similar to the average in the previous year but well below the national average of 8.5%.

Prices and Income

Western Australia is a high income State. However, growth in wages has shown signs of moderation. In particular, in 1995–96 wages grew by 3.5%, down from 5.5% growth in 1994–95.

Stronger productivity growth has allowed stronger wage growth without additional price pressure.

Subsequently, inflation has remained subdued. The growth in consumer prices fell marginally to 4.0% in 1995–96, down from a cyclical peak of 4.8% in calendar 1995. Over the past five years to 1995–96 inflation averaged at 2.0% in Western Australia compared with Australia's average of 2.1%.

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Labour Force, Australia (6203.0)

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Agriculture, Forestry And Fisheries

Chapter 11

AGRICULTURE, FORESTRY AND FISHERIES

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Chapter 11

AGRICULTURE, FORESTRY AND FISHERIES

Agriculture

Agricultural Statistics

The principal source of statistics relating to the agricultural sector is the Integrated Agricultural Commodity Census, which is conducted annually by the Australian Bureau of Statistics (ABS). Establishments included in the Census are defined and classified in accordance with the Australian New Zealand Standard Industrial Classification (ANZSIC).

While no financial data are collected in the census, an 'Estimated Value of Agricultural Operations' (EVAO) is calculated for each establishment by applying unit values to reported production and stock data. This procedure enables establishments in the census to be classified according to industry (ANZSIC) and according to size of operations.

Since 1976–77, to reduce both the burden placed on small businesses and ABS processing costs, small establishments have been excluded from the census. From 1976–77 to 1980–81, an EVAO cut-off of $1,500 was used. The cut-off was raised to $2,500 in 1981–82, raised to $20,000 in 1986–87 and raised further to $22,500 in 1990–91.

The effect of the pre-1986–87 cut-offs on statistics, other than counts of establishments, was minimal. The effect of the 1990–91 cut-off was also minimal. The $20,000 cut-off applying from 1986–87 did have a significant effect on some items and estimates of the extent of under coverage are available from the ABS. From 1993–94 the cut-off was reduced to $5,000 and coverage improvements were made.

Statistics on the financial performance of the agricultural sector are obtained from the Agricultural Finance Survey which has been conducted periodically by the ABS. This survey, which provides estimates of turnover, expenditure, cash operating surplus, capital expenditure and indebtedness, was recommenced on an annual basis from 1986–87. Detailed definitions and explanatory notes about the survey were published in the bulletin *Agricultural Industries, Financial Statistics, Australia* (Catalogue No. 7507.0).

Value of Agricultural Commodities Produced

For agricultural production, the gross value is based on the wholesale price realised in the market place. Where commodities are consumed at the place of production or where they become raw material for secondary industry within the State, these points of consumption are taken as the market places. The local value is the value at the place of production and is obtained by deducting marketing costs from the gross value. Marketing costs comprise freight, cost of containers, commission, and other charges incurred in marketing. Gross values provide a reliable measure of the value of production of any particular commodity or group. When comparing or combining values for agricultural industries with those for secondary industries, however, the value added series of financial statistics from the Agricultural Finance Survey should be used.

11.1 – NUMBER OF ESTABLISHMENTS BY ESTIMATED VALUE OF AGRICULTURAL OPERATIONS, 1994–95 (a)

Industry of establishment	*Estimated value of agricultural operations ($)*							
Description	*Less than 5 000*	*5 000–22 499*	*22 500–49 999*	*50 000–99 999*	*100 000–199 999*	*200 000–499 999*	*500 000 and over*	*Total*
Plant nurseries		14	18	39	29	30	10	140
Cut flower & flower seed growing	1	26	33	20	12	18	12	122
Vegetable growing	9	69	84	87	117	128	70	564
Grape growing	6	69	83	38	26	7	4	233
Apple and pear growing	2	21	40	34	65	35	10	207
Stone fruit growing	5	48	57	37	19	6	1	173
Kiwi fruit growing		1	3	1	1	1	–	*7*
Fruit growing n.e.c.	9	71	45	40	73	48	8	294
Grain growing	5	25	43	97	296	1 050	760	2 276
Grain-sheep/beef cattle farming	1	35	118	402	1 162	1 885	452	4 055
Sheep-beef cattle farming	5	95	129	162	118	99	22	630
Sheep farming	27	274	298	453	484	344	48	1 928
Beef cattle farming	72	758	495	248	142	105	69	1 889
Dairy cattle farming	–	11	18	32	139	268	48	516
Poultry farming (meat)	–	–	2	4	4	8	41	59
Poultry farming (eggs)	1	3	5	4	17	30	25	85
Pig farming	–	13	14	22	25	39	22	135
Horse farming	1	44	36	18	11	3	–	113
Deer farming	–	3	5	12	8	7	3	38
Livestock farming n.e.c.	12	31	47	23	15	19	9	156
Sugar cane farming	–	–	–					–
Cotton growing								–
Crop and plant growing	2	11	12	11	12	9	6	63
Total agriculture	*158*	*1 622*	*1 585*	*1 784*	*2 775*	*4 139*	*1 620*	*13 683*
Other industries	*7*	*49*	*19*	*23*	*18*	*18*	*7*	*141*
Unclassified	*147*	–	–	–	–	–	–	*147*
Total all industries	**312**	**1 671**	**1 604**	**1 807**	**2 793**	**4 157**	**1 627**	**13 971**

(a) Due to a variety of reasons a number of establishments neither grew crops nor grazed livestock during the year ended 31 March 1995.

Reference: Catalogue No. 7113.5

Regulatory and Marketing Bodies

Editions of the Western Australian Year Book prior to and including 1993 contained detailed text on the roles and responsibilities with regard to agriculture of the following organisations:

- Agriculture WA (formerly Department of Agriculture);
- Department of Conservation and Land Management (CALM);
- Agriculture Protection Board;
- Western Australian Egg Marketing Board;
- Western Australian Fisheries Department;
- Co-operative Bulk Handling Limited;
- The Australian Wheat Board;
- The Western Australian Lamb Marketing Board; and
- The Australian Wool Corporation.

11.2 – NUMBER OF ESTABLISHMENTS BY AREA OF ESTABLISHMENT, 1994–95 (a)

Industry of establishment	*Area of establishment (hectares)*						
Description	*0–49*	*50–499*	*500–2 499*	*2 500–9 999*	*10 000–49 999*	*50 000 and over*	*Total*
Plant nurseries	123	15	2	–	–	–	140
Cut flower & flower seed growing	82	33	6	1		–	122
Vegetable growing	340	190	30	1	1	2	564
Grape growing	177	50	5	–		1	233
Apple and pear growing	130	75	2	–			207
Stone fruit growing	145	26	2	–	–	–	173
Kiwi fruit growing	5	2	–			–	7
Fruit growing n.e.c.	247	42	4	–	–	1	294
Grain growing	4	108	1 084	1 053	26	1	2 276
Grain-sheep/beef cattle farming	7	253	2 788	977	26	4	4 055
Sheep-beef cattle farming	16	278	259	40	2	35	630
Sheep farming	56	612	943	98	17	202	1 928
Beef cattle farming	172	1 263	261	37	4	152	1 889
Dairy cattle farming	21	412	82	1	–	–	516
Poultry farming (meat)	51	6	2	–	–	–	59
Poultry farming (eggs)	70	12	3	–	–	–	85
Pig farming	34	62	37	1	1		135
Horse farming	48	65				–	113
Deer farming	13	23	2	–	–	–	38
Livestock farming n.e.c.	87	43	23	2		1	156
Sugar cane farming		–	–	–			
Cotton growing		–	–	–	–		
Crop and plant growing	8	39	14	1		1	63
Total agriculture	*1 836*	*3 609*	*5 549*	*2 212*	*77*	*400*	*13 683*
Other industries	*46*	*55*	*29*	*6*	*2*	*3*	*141*
Unclassified	*60*	*42*	*26*	*7*	*3*	*9*	*147*
Total all industries	**1 942**	**3 706**	**5 604**	**2 225**	**82**	**412**	**13 971**

(a) Due to a variety of reasons a number of establishments neither grew crops nor grazed livestock during the year ended 31 March 1995.

Reference: Catalogue No. 7113.5

Agriculture in Western Australia

Wheat remained the most important agricultural commodity in 1994–95 with a gross value of $1,307.4 million, followed by wool with $811.2 million. The total value of agricultural commodities produced rose to $3,861.4 million, an increase of 14.7% over the previous year. Increases were recorded in the value of most commodities with total crops up 10.1% from the previous season's $2,058.5 million to $2,266.1 million. Livestock and livestock products rose by 22.1% from $1,306.6 million in 1993–94 to $1,595.3 million in 1994–95.

11.3 – FINANCIAL STATISTICS, AGRICULTURAL ENTERPRISES

	1992–93	1993–94	1994–95
	$m	$m	$m
Sales of crops	1 577.7	1 738.0	1 937.5
Sales of livestock	462.8	577.1	574.6
Sales of livestock products	690.8	725.6	806.5
Turnover	2 875.8	3 180.9	3 529.9
Purchases and selected expenses	1 710.5	1 885.7	2 033.8
Value added	1 188.9	1 706.6	1 640.6
Adjusted value added	1 006.4	1 514.1	1 439.2
Gross operating surplus	801.2	1 279.2	1 210.5
Total interest paid	190.8	178.7	221.3
Cash operating surplus	618.5	719.9	875.7
Total net capital expenditure	279.3	360.7	382.6
Gross indebtedness	2 192.5	2 459.3	2 987.6

Reference: Catalogue No. 7507.0

11.4 – GROSS VALUES, MARKETING COSTS AND LOCAL VALUES OF AGRICULTURAL COMMODITIES

	1992–93(a)	1993–94(b)	1994–95(b)
	$m	$m	$m
Crops and pastures—			
Gross value of production	1 896.7	2 058.5	2 266.1
Marketing costs	267.5	285.3	253.8
Local value of production	1 629.2	1 773.2	2 012.3
Livestock slaughterings and other disposals—			
Gross value of production	466.2	545.7	624.2
Marketing costs	41.5	55.8	61.7
Local value of production	424.7	489.9	562.4
Livestock products—			
Gross value of production	751.8	760.9	971.1
Marketing costs	37.3	37.7	33.1
Local value of production	714.5	723.2	938.0
Total agriculture—			
Gross value of production	**3 114.8**	**3 365.1**	**3 861.4**
Marketing costs	**346.4**	**378.8**	**348.6**
Local value of production	**2 768.4**	**2 986.3**	**3 512.8**

(a) Includes only establishments with an EVAO of $22,500 and over.
(b) Includes only establishments with an EVAO of $5,000 and over.
Reference: Catalogue No. 7503.0

Land Use on Agricultural Establishments

The number of agricultural establishments eligible for inclusion in the Agricultural Census for 1994–95 was 13,971, down slightly from the 14,555 in 1993–94. They comprised 114.0 million hectares of land, about 45.5% of the total area of Western Australia.

Of the total area of these establishments, 6.2 million hectares were used for crops excluding sown pasture and grasses. The balance consisted mainly of uncleared land (most of which was pastoral leases held by sheep and cattle stations) but also included cleared land (which was used for grazing or was resting during the season), fallowed areas and newly cleared land.

Table 11.5 gives details of rural land use according to statistical division for 1994–95. Maps of the statistical divisions and their component statistical local areas are located in the Appendix.

11.5 – LAND USE, 1994–95

		Land use during the season			
Statistical division	Agricultural establishments	Used for crops	Under sown pastures	Lucerne (all purposes)	Total area of establishments
	No.	'000 ha	'000 ha	'000 ha	'000 ha
Perth	1 269	7.5	n.c.	n.c.	92.8
South-West	2 804	41.0	n.c.	n.c.	912.5
Lower Great Southern	2 456	637.4	n.c.	n.c.	2 862.3
Upper Great Southern	1 858	1 162.3	n.c.	n.c.	3 364.4
Midlands	3 168	2 696.5	n.c.	n.c.	7 134.3
South-Eastern	740	439.4	n.c.	n.c.	17 454.1
Central	1 432	1 190.9	n.c.	n.c.	43 954.0
Pilbara	58	4.6	n.c.	n.c.	13 777.5
Kimberley	186	6.6	n.c.	n.c.	24 403.4
Total	**13 971**	**6 181.4**	**n.c.**	**n.c.**	**113 955.3**

Reference: Catalogue No. 7113.5

Crops and Pastures

Wheat

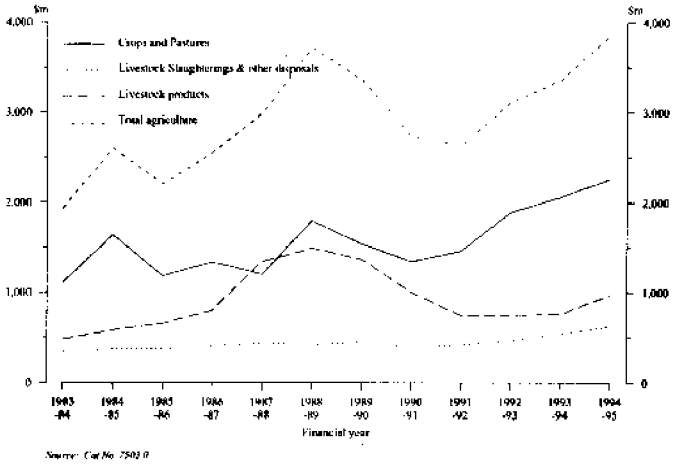
Wheat plantings in 1994–95 covered 3,848,300 hectares, a decrease of 0.1% compared with the previous year. This was the eighth consecutive wheat crop of under 4 million hectares following crops in excess of 4 million hectares for each year between 1980 and 1987. Improving yields, however, have meant that production has generally continued to rise, although the state total harvest for 1994–95 of 5,437,900 tonnes was 18.7% lower than in the previous season. The latest harvest represented a State yield of 1.41 tonnes per hectare, well down on the 1.73 tonnes per hectare of the previous season which represented a new record yield. This year's poorer yield still maintains the recent trend of yields well above the 20 year average yield of 1.16 tonnes per hectare. The lower yield was largely the result of less favourable growing conditions throughout the wheat-belt due to erratic rainfall patterns.

11.6 – CROPS FOR GRAIN

	Unit	1992–93(a)	1993–94(b)	1994–95(b)
Wheat				
Area	'000 ha	3 669	3 852	3 848
Production—				
Total	'000 t	5 979	6 689	5 438
Per hectare	tonnes	1.63	1.73	1.41
Gross value	$'000	1 083 800	1 156 898	1 307 400
Oats				
Area	'000 ha	332	268	256
Production—				
Total	'000 t	578	511	425
Per hectare	tonnes	1.74	1.91	1.66
Gross value	$'000	72 908	45 105	58 711
Barley				
Area	'000 ha	611	799	579
Production—				
Total	'000 t	1 061	1 381	915
Per hectare	tonnes	1.74	1.73	1.58
Gross value	$'000	168 319	172 268	179 237
Lupins				
Area	'000 ha	823	929	1 152
Production—				
Total	'000 t	826	1 181	982
Per hectare	tonnes	1.00	1.27	0.85
Gross value	$'000	162 899	209 102	177 327

(a) Includes only establishments with an EVAO of $22,500 and over.
(b) Includes only establishments with an EVAO of $5,000 and over.
Reference: Catalogue No. 7113.5, 7503.0

DIAGRAM 11.1 – GROSS VALUE OF AGRICULTURAL COMMODITIES PRODUCED



Oats

Plantings of oats for grain in 1994–95 covered 256,500 hectares, a decrease of 4.5% on the previous year. State production decreased by 16.8% to 424,800 tonnes as the yield fell to 1.66 tonnes per hectare, well down on the record 1.91 tonnes per hectare recorded the previous season. The lower yield was largely attributed to the same erratic rainfall and seasonal conditions which affected the yield of other broadacre crops.

Barley

In 1994–95, barley plantings decreased by 27.5% from the previous year to 579,100 hectares. This represented a return to the more common levels of sowings in the past and left the 1993–94 season as the best since 1985–86 when the crop amounted to 825,700 hectares. Production decreased by 33.7% to 914,900 tonnes, representing a State average yield of 1.58 tonnes per hectare, down from the record 1.74 tonnes per hectare set in 1992–93 and the 1.73 tonnes per hectare of the 1993–94 season. Again, barley production was affected by the less favourable conditions throughout the season. However, recent yields have still comfortably exceeded the 20 year average of 1.28 tonnes per hectare.

Lupins

In 1994–95, lupin plantings increased to 1,152,100 hectares, an increase of 24.0% on the previous year. This was the highest area on record, exceeding the 928,700 hectares planted in 1993–94. However, production fell by 16.8% to 982,200 tonnes from the 1,181,100 tonnes of the previous season causing a sharp fall in the State average yield from the record 1.27 tonnes per hectare of 1993–94 to 0.85 tonnes per hectare in 1994–95. This latest yield fell slightly below the 20 year average of 0.98 tonnes per hectare. The decreased yield could be attributed to the same factors in the season which led to falls in yields in cereal crops.

Other Grains and Oilseeds

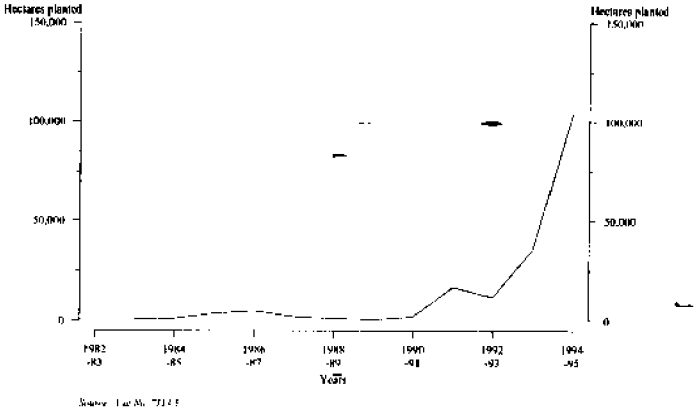
Plantings of canola (rapeseed) in 1994–95 rose above the 1993–94 record of 35,800 hectares to a new record of 104,100 hectares. This represented an increase of 190.8%. This increase is partially the result of increased numbers of farmers electing to plant the crop, due to very good commodity prices compared to other crops and a comparative lack of competition from US and Canadian farmers. Production was 107,900 tonnes representing a yield of 1.04 tonnes per hectare.

Triticale, a wheat/rye cross, was first recorded in the Agricultural Census in 1978–79 and plantings increased each year until 1984–85 when a record 39,000 hectares were sown. Area planted in the 1994–95 season was 13,600 hectares, a decrease of 30.3% on the 1993–94 figure of 19,500 hectares. Production fell to 12,000 tonnes, a decrease of 45.4% on the 22,000 tonnes produced in 1993–94. This represented a yield of 0.88 tonnes per hectare compared with the 1.13 tonnes per hectare of the previous season.

Significant increases in the planting of field peas have occurred over the past decade. In 1994–95 plantings rose to 42,700 hectares, an

increase of 26.7% over the previous season, but production fell from 30,800 tonnes in 1993–94 to 24,200 tonnes in 1994–95, down 21.4%. Chick peas and faba beans both continued their rapid increase in significance in Western Australia. Chick pea plantings increased from 3,400 hectares in 1993–94 to 13,400 hectares in 1994–95, a rise of 294.1%. Faba bean plantings increased from 3,700 hectares to 23,500 hectares in the same period, a rise of 535.1%. Production of both commodities also increased by significant margins over the previous season. Grain sorghum, linseed, rye, vetches, safflower and sunflower were also grown in small quantities.

DIAGRAM 11.2 – CANOLA



11.7 – HAY

	Unit	*1992–93(c)*	*1993–94(d)*	*1994–95(d)*
Pasture (a)—				
Area	'000 ha	104	111	113
Production	'000 t	368	427	404
Crop (b)—				
Area	'000 ha	93	88	104
Production	000 t	394	385	383

(a) Includes lucerne.
(b) Principally from oats and wheat
(c) Includes only establishments with an EVAO of $22,500 and over.
(d) Includes only establishments with an EVAO of $5,000 and over.
Reference: Catalogue No. 7113.5

Hay

Large quantities of pasture hay are traditionally cut from clover and grass pastures in WA. Production in 1994–95 decreased to 404,200 tonnes from 427,400 tonnes although the area rose from 110,900 hectares to 113,000 hectares. This small increase in area,

up 1.9%, coupled with a reduction in yield from 3.85 tonnes per hectare in 1993–94 to 3.58 tonnes per hectare in 1994–95 lead to a fall in production of 5.4%. The principal cereal hay crops in WA are traditionally oats and wheat.

Pastures

Of the 8.4 million hectares of improved pastures in the State, the majority are sown to the legume, subterranean clover. Other species in use include medic, rose clover, serradella, lucerne and a variety of grasses, principally Wimmera ryegrass.

Sown pastures and grasses were not included on the 1994–95 Agricultural Census due to the adoption, in 1993–94, of a cyclical rotation of selected data items. Data will, however, be collected on them in the 1995–96 collection.

A history of the evolution of broadacre cropping in Western Australia can be found within the Agriculture chapter of the Western Australian Year Book up to and including the 1993 edition.

Vegetables

In 1994–95, total vegetable plantings decreased by 3.6% from the previous year to 9,322 hectares despite increases in some of the more significant crops. Potato plantings accounted for 27.4% of the vegetable area, covering 2,553 hectares, a decrease of 6.1% from the previous year. Potato production also fell by 7.4 per cent to 103,572 tonnes because of marginally decreased yields. The area for growing onions increased by 5.6% to 398 hectares as a result of slightly higher market prices. However, production rose by only 0.9% as yields fell.

Although the area of lettuce planted increased by 6.4% from the previous year to 434 hectares, production fell by 14.7% from 15,878 tonnes to 13,545 tonnes. The area of rockmelons and cantaloupes declined slightly from 545 hectares to 527 hectares but production increased from 8,253 tonnes to 8,294 tonnes. Watermelons increased significantly in both area sown and production to set new records — area rising by 36.5% to 639 hectares and production increasing by 36.1% to 15,674 tonnes. Carrot production increased 4.5% on the previous year from 42,757 tonnes to 44,673 tonnes and broccoli production decreased by 15.4% from 3,208 tonnes in 1993–94 to 2,713 tonnes in 1994–95. Of the smaller root crop plantings, parsnips continued to show greater grower interest with the area planted increasing by 19.8% (from 48.4ha to 58.0ha) although production eased slightly from 962.3 tonnes to 917.1 tonnes, down by 4.7%. Sweet potatoes also showed considerable gains in both area (from 9.7ha to 22.3ha) and production (from 134.2 tonnes to 301.9 tonnes), up 130% and 125% respectively.

For a detailed history of vegetable growing in Western Australia, including background on areas predominantly involved, please refer to the Agriculture chapter of the Western Australian Yearbook up to and including the 1993 edition.

11.8 – PRINCIPAL VEGETABLES

	Unit	1992–93(a)	1993–94(b)	1994–95(b)
Carrots—				
Area	hectares	715	814	836
Production	tonnes	36 439	42 757	44 673
Gross value	$'000	20 049	23 804	31 093
Cauliflowers—				
Area	hectares	899	903	1 020
Production	tonnes	14 656	14 066	15 676
Gross value	$'000	15 472	15 318	19 522
Lettuce—				
Area	hectares	377	408	434
Production	tonnes	17 451	15 878	13 545
Gross value	$'000	8 293	5 545	7 856
Onions—				
Area	hectares	321	377	398
Production	tonnes	18 936	22 480	22 691
Gross value	$'000	5 675	5 972	9 263
Potatoes—				
Area	hectares	2 640	2 720	2 553
Production	tonnes	108 171	111 813	103 572
Gross value	$'000	34 635	33 798	37 301
Tomatoes—				
Area	hectares	247	225	193
Production	tonnes	8 385	8 194	7 694
Gross value	$'000	8 933	8 415	8 589
All vegetables—				
Area	**hectares**	**9 594**	**9 674**	**9 322**
Gross value	**$'000**	**139 926**	**138 958**	**161 719**

(a) Includes only establishments with an EVAO of $22,500 and over.
(b) Includes only establishments with an EVAO of $5,000 and over.
Reference: Catalogue Nos. 7113.5, 7503.0 & AgStats on Floppy Disk (7117.0).

Fruit

Apples and Pears

In 1994–95, the number of apple trees fell to 978,106, a decrease of 3.1% from the previous season. Granny Smiths remained the predominant variety, accounting for 45.6% of the total 29,898 tonnes of apples produced. However, production of the newer varieties of apples, such as Gala, Pink Lady and Sundowner, increased significantly compared with the 1993–94 season. Other more established varieties to show increases and maintain their popularity included Lady Williams and Jonathons. Total apple production decreased by 33.0% as average yields fell from 89.7 kg per tree to 62.0 kg per tree largely due to the increasing proportion of trees under the generally accepted bearing age of 6 years.

Pears are usually grown in conjunction with apples and, although apples are still considerably more important, the number of pear trees has increased by over 50% in the last ten years. Pear tree numbers fell to 191,696 in 1994–95 from 214,488 in the 1993–94

season. This represented a decrease of 10.6%. Nashi pears remain the predominant variety with a total of 31,517 trees, 16.4% of all pear trees.

11.9 – FRUIT

	Unit	1992–93(a)	1993–94(b)	1994–95(b)
Area—				
Orchard fruit	ha	5 687	6 049	6 139
Plantation and berry fruit	"	783	838	676
Grapes	"	2 515	2 713	2 788
Total	"	**8 985**	**9 600**	**9 602**
Gross value of production—				
Orchard fruit	$'000	45 984	62 272	58 823
Plantation and berry fruit	"	37 076	29 481	29 268
Grapes	"	14 205	17 637	18 016
Total	"	**97 265**	**109 390**	**106 108**

(a) Includes only establishments with an EVAO of $22,500 and over.
(b) Includes only establishments with an EVAO of $5,000 and over.
Reference: Catalogue No. 7113.5, 7503.0

Citrus Fruit

Oranges remained the predominant citrus fruit in 1994–95. Production of oranges for the season decreased by 17.9% to 5,166 tonnes, down from 6,295 tonnes the previous year. The number of trees capable of commercial crop production decreased by 9.2%. Total orange tree numbers fell from 221,712 to 203,065 — a fall of 8.4%. Production of lemons and limes decreased by 22.6% from 1,240 tonnes to 960 tonnes. The number of mandarin trees, however, increased by 7.3% to 89,999 trees and production increased 1,585, an increase of 3.9%.

Stone Fruits

Stone fruits are grown mainly in the hills districts in the Darling Ranges near Perth and in the Shires of Manjimup and Donnybrook–Balingup in the south-west of the State; however, limited amounts of stone fruits are grown in many other districts of the South-West.

Total volume of stone fruit production fell moderately, down 4.7% from 8,242 tonnes in 1993–94 to 7,856 tonnes in 1994–95, as average yields fell for all stone fruit for the second consecutive year. Some types of stone fruit recorded significant decreases in production. Cherry production fell by 47.4% as average yields dropped to a low of 4.1 kg per tree. As recently as two seasons ago, the State's cherry trees were producing yields of 12.4 kg per tree.

Nectarine tree numbers rose by 14.3% but production increased only slightly to 2,200 tonnes, a rise of 9.9%, again reflecting this season's poor yields. This decline in yields has been attributed, in part, to poor weather conditions in the growing areas and changes

in the proportions of trees under, and over, bearing age. Plum and prune production fell by 3.8% to 3,285 tonnes. Apricot production also decreased during 1994–95 from 463 tonnes to 417 tonnes. The drop in yields, however, was less dramatic than those affecting other stone fruits. Peach production fell 15.6% and the number of trees over 6 years of age fell by 2.4% compared with the previous season. However, total tree numbers rose with new plantings.

11.10 – ORCHARD FRUIT

	Unit	*1992–93(a)*	*1993–94(b)*	*1994–95(b)*
Apples—				
Trees	'000	770	1 009	978
Production	tonnes	36 551	44 579	29 898
Gross value	$'000	17 756	32 142	23 736
Pears—				
Trees	000	192	214	192
Production	tonnes	8 311	8 868	8 896
Gross value	$'000	5 596	6 239	7 091
Lemons and limes—				
Trees	'000	19	20	19
Production	tonnes	1 191	1 240	960
Gross value	$'000	833	819	525
Mandarins—				
Trees	'000	66	84	90
Production	tonnes	1 348	1 524	1 585
Gross value	$ 000	1 083	2 049	1 903
Oranges—				
Trees	000	190	222	203
Production	tonnes	6 519	6 295	5 166
Gross value	$'000	1 882	2 733	1 948
Nectarines—				
Trees	'000	168	188	215
Production	tonnes	2 226	2 002	2 200
Gross value	$'000	2 769	4 250	6 422
Apricots—				
Trees	'000	21	22	23
Production	tonnes	481	463	417
Gross value	$'000	974	575	887
Peaches—				
Trees	'000	150	160	168
Production	tonnes	2 145	2 239	1 889
Gross value	$'000	3 881	2 780	2 009
Cherries—				
Trees	'000	31	31	33
Production	tonnes	130	124	65
Gross value	$ 000	543	837	830
Plums and prunes—				
Trees	'000	218	243	252
Production	tonnes	3 563	3 414	3 285
Gross Value	$'000	5 090	3 892	5 642

(a) Includes only establishments with an EVAO of $22,500 and over.
(b) Includes only establishments with an EVAO of $5,000 and over.
Reference: Catalogue No. 7113.5, 7503.0 & AgStats on floppy disc 7117.0

Other Orchard Fruit

Mango production rose by 32.7% as the number of trees aged 6 years and over increased by 21.3% and total tree numbers rose by 21.6%. These increases reflected favourable market prices. Production of avocados rose 40.7% from 859 tonnes to 1,209 tonnes for 1994–95. The number of avocado trees aged six years and over rose by 31.1%.

Vineyards

In 1994–95, the total area of plantings for grapes was 2,788 hectares — an increase of 2.8% on the previous year's planting of 2,713 hectares. The area of red grapes planted was 1,312 hectares, down from 1,331 hectares the previous season; production was 7,868 tonnes compared with the 7,988 tonnes of the previous season. White grapes produced 7,530 tonnes, down 14.3% from 8,791 tonnes in 1993–94. The area sown to white grapes, however, increased from 1,382 hectares in 1993–94 to 1,475 hectares for 1994–95, a rise of 6.7%. Winemaking grape production decreased by 5.0% from 12,959 tonnes to 12,314 tonnes, while production of grapes for drying increased by 17.9% from 1,261 tonnes to 1,487 tonnes. Table and other grape production rose by 7.0 per cent to 2,740 tonnes from 2,561 tonnes in 1993–94.

11.11 – GRAPES

	Unit	1992–93(a)	1993–94(b)	1994–95(b)
Area of vines—				
Bearing	ha	2 261	2 435	2 415
Not yet bearing	ha	254	278	372
Grapes for wine making and table use—				
Quantity	tonnes	12 396	15 520	15 053
Gross value	$'000	13 050	16 985	17 293
Grapes for drying—				
Quantity	tonnes	1 347	1 261	1 487
Gross value	$'000	1 155	648	724

(a) Includes only establishments with an EVAO of $22,500 and over.
(b) Includes only establishments with an EVAO of $5,000 and over.
Reference: Catalogue No. 7113.5, 7503.0 and AgStats on floppy disc 7117.0

Tropical and Other Fruit

During 1994–95, banana production fell 30.0% to 13,012 tonnes from 18,603 tonnes as the average yield per bearing hectare fell to 32.9 tonnes per hectare. The total area of bananas also fell, from 625 hectares to 491 hectares, with bearing area decreasing to 396 hectares from 545 hectares.

Strawberry production decreased by 9.5% to 2,070 tonnes following the record 2,288 tonnes of 1993–94. Bearing area fell by 17.6% to 100 hectares and the total area of strawberries decreased by 19.0% to 111 hectares. The average yield per hectare, however, rose to 20.7 tonnes per hectare. Nearly 90 per cent of the area planted is within the Perth Statistical Division.

Nurseries

Nurseries and the Nursery industry were the subject of a new National collection during 1992–93. This detailed collection was sponsored by the Nursery Industry Association of Australia (NIAA) for a three year period and collected additional data on labour and other operating costs associated with the operation of nursery businesses. For 1993–94, department stores operating nursery sections were included. Extensive data from the 1992–93 and 1993–94 collections are available on request from all ABS offices.

11.12 – NURSERIES (a)

	Unit	1992-93(b)	1993-94(c)	1994–95(c)
Area	ha	1 987	2 063	2 068
Gross value	$'000	62 359	79 114	73 725

(a) Including cut flowers and cultivated turf.
(b) Includes only establishments with an EVAO of $22,500 and over.
(c) Includes only establishments with an EVAO of $5,000 and over.
Reference: Catalogue No. 7113.5 and AgStats on floppy disc 7117.0

Artificial Fertilisers and Soil Conditioners

Fertiliser usage was not collected in the 1994–95 Agricultural Census due to the adoption of a cyclical collection arrangement covering these data.

The area treated by soil conditioners, lime and dolomite, decreased by 25.8% to 139,538 hectares. A total of 157,622 tonnes of lime and dolomite were applied.

11.13 – ARTIFICIAL FERTILISER USED ON RURAL HOLDINGS

	Unit	1992–93(a)	1993–94(b)	1994–95(b)
Artificial fertiliser used—				
Area fertilised	'000 ha	7 455	7 557	n.c.
Quantity used	'000 t	797	866	n.c.
Soil conditioners—				
Area treated	'000 ha	152	188	140
Quantity used	'000 t	154	195	158

(a) Includes only establishments with an EVAO of $22,500 and over.
(b) Includes only establishments with an EVAO of $5,000 and over.
Reference: Catalogue No. 7113.5

Livestock

Sheep and Lambs

Sheep and lamb numbers continued to decrease during 1994–95 with a fall of 5.4% to a total of 30.2 million at the end of March 1995. This followed a 3.0% decrease in the previous year. The reduction affected both sheep numbers and lamb numbers with sheep numbers falling by 6.6% while lamb numbers fell by 7.5%. The number of establishments reporting sheep and lambs also fell from 9,600 in 1993–94 to 9,021 in 1994–95.

Cattle

Cattle, regardless of breed, are classified according to the two broad categories of 'meat production' and 'milk production'.

At 31 March 1995, meat cattle constituted over 93% of the State's cattle herd with 1,773,100 head, a rise of 5.4% on the previous season. After reaching a peak of 2,500,000 head in 1976, meat cattle numbers declined by 35% over the ensuing nine years. Since 1985, however, meat cattle numbers have been relatively stable within a range of 1.5 to 1.8 million.

Milk cattle numbers rose from 123,000 to 126,000 representing an increase of 2.4% between 1993–94 and 1994–95. Almost 90% of the State's milk cattle population is within the South West Statistical Division.

11.14 – LIVESTOCK NUMBERS AT 31 MARCH

	1993(a)	*1994(b)*	*1995(b)*
	'000	'000	'000
Meat cattle	1 532.0	1 682.5	1 773.1
Milk cattle (excludes house cows)	116.2	123.0	126.0
Sheep & Lambs	32 964.8	31 951.5	30 217.9
Pigs	305.3	311.6	316.4
Poultry	6 496.7	6 001.8	6 240.1

(a) Includes only establishments with an EVAO of $22,500 and over.
(b) Includes only establishments with an EVAO of $5,000 and over.
Reference: Catalogue No. 7113.5

11.15 – SHEEP NUMBERS AND DISTRIBUTION AT 31 MARCH

	In agricultural areas		*In pastoral areas*		*State Total*
Year(a)	*Number*	*Proportion of State total*	*Number*	*Proportion of State total*	*Number*
	'000	%	'000	%	000
1960	13 396	81.6	3 016	18.4	16 412
1970	29 844	88.7	3 790	11.3	33 634
1980	28 730	94.4	1 701	5.6	30 431
1990	35 924	93.5	2 498	6.5	38 422
1991	33 934	93.2	2 456	6.7	36 390
1992	31 782	93.3	2 279	6.7	34 060
1993	30 741	93.2	2 224	6.8	32 965
1994	29 630	92.7	2 322	7.3	31 952
1995	27 985	92.6	2 233	7.4	30 218

(a) Differing EVAO cutoffs have applied at various times.
Reference: Customised output

Wool

The National Council of Wool Selling Brokers has estimated the 1994–95 wool clip at 173,383 tonnes, representing an 18.3% decrease over the previous year's 212,266 tonnes. The 1989–90 clip of 236,079 tonnes remains the highest on record and decreasing sheep and lamb numbers mean it is unlikely to be exceeded in the foreseeable future. With wool production statistics for 1994–95 based on Brokers and Dealers Receivals of Taxable Wool, rather than the Agricultural Census, it is no longer possible to determine the number of sheep and lambs shorn to produce the wool clip.

11.16 – SHEEP SHORN AND WOOL PRODUCTION(a) AT 30 JUNE

	Unit	*1992–93*	*1993–94*	*1994–95*
Sheep shorn	'000	35 620	37 353	n.c.
Lambs shorn	"	7 870	7 906	n.c.
Total	"	**43 490**	**45 259**	**n.c.**
Average weight of wool shorn	kg	4.63	4.64	n.c.
Wool production (greasy)—				
Shorn	'000t	204	209	n.c.
Dead, fellmongered, exported on skins	"	4	3	n.c.
Total	"	**208**	**212**	**173**

(a) Data supplied by the National Council of Wool Selling Brokers (NCWSB).
Reference: NCWSB Collection

Livestock Slaughtering

Slaughterings of cattle and calves in the year to June 1995 fell by 1.8% to 435,000. This followed a 3.1% decrease the previous year. Beef and veal produced also fell, by 4.3% to 97,427 tonnes. However, the gross value of cattle and calves slaughtered increased by 35.9% to $295.7 million from the previous year's $217.6 million, reflecting better market prices.

Sheep and lamb slaughterings, to June 1995, fell 17.8% over the previous year. The total number of sheep and lambs slaughtered fell to 3.7 million. This fall was mainly due to a 17.4% reduction in sheep slaughterings. Lamb slaughterings decreased by 18.6%. The gross value of sheep and lambs slaughtered decreased to $173.1 million, a fall of 6.6% from the previous year. Mutton and lamb produced fell sharply by 23.0% from 86,667 tonnes the previous year to this year's 66,731 tonnes.

Pig slaughterings rose by 9.8% in the year to June 1995, with pigmeat production rising to 37,109 tonnes, a rise of 14.4% over the previous year. The value of pigs slaughtered rose from $68.6 million to $75.2 million as pig prices remain steady.

11.17 – LIVESTOCK SLAUGHTERED AND MEAT PRODUCED

	Unit	*1992–93*	*1993–94*	*1994–95*
Livestock slaughtered (a)—				
Sheep and lambs	'000	5 233	4 505	3 702
Gross value (b)	$'000	147 208	185 268	173 131
Cattle and calves	000	457	443	435
Gross value (b)	$'000	186 664	217 605	295 692
Pigs	'000	568	550	604
Gross value (b)	$ 000	64 149	68 637	75 190
Meat produced (c)—				
Mutton and lamb	tonnes	100 316	86 667	66 731
Beef and veal	"	100 499	101 809	97 427
Pigmeat produced (c)(d)	"	33 562	32 423	37 109

(a) Mainly slaughterings for human consumption but also includes quantities condemned and small numbers of livestock slaughtered for boiling down.
(b) Value on hoof at principal market.
(c) Dressed carcass weight; excludes condemned carcasses and offal.
(d) Includes quantities used to produce ham.
Reference: Catalogue No. 7113.5, 7503.0 and AgStats on floppy disc 7117.0.

Dairying

As previously mentioned, the bulk of the State's dairy cattle are concentrated in the high rainfall, near-coastal strip from Pinjarra to Augusta, with lesser numbers being found further east as far as Albany on the south coast. Irrigation of pastures in some areas during the drier summer months plays an important role in the industry.

Milk production for 1994–95 fell by 0.3% to 343 million litres. This is the first decrease in milk production in the past 5 seasons, but the value of milk produced rose by 4.2% because of improving prices.

11.18 – WHOLE MILK PRODUCTION

	Unit	*1992–93*	*1993–94*	*1994–95*
Quantity	million L	324	344	343
Gross Value	$ 000	114 044	121 200	126 238

(a) Includes milk used for processing.
Reference: Catalogue No. 7113.5, 7215.0.

Pig Raising

Intensive piggeries have assumed greater importance in recent years and there has been a reduction in the number of pigs being raised in small or 'mixed farm' operations. The State's pig population in March 1995 was 316,400, a rise of 1.5% on the previous year.

Poultry Farming

Poultry numbers have risen to 6.2 million for 1994–95, a rise of 4.0% over the 6 million of the previous year. Egg production increased with 19.9 million dozen eggs produced during 1994–95, but the gross value of eggs produced fell from $32.4 million to $31.6 million. Poultry slaughtered for table purposes increased by 6.6% from 39,386 tonnes to 42,007 tonnes and the gross value increased by 9.7% to $78.8 million as market prices rose.

11.19 – EGG PRODUCTION AND POULTRY SLAUGHTERED FOR TABLE PURPOSES

	Unit	*1992–93*	*1993–94*	*1994–95*
Egg production—				
Quantity (a)	million dozen	18.8	19.7	19.9
Gross value	$'000	30 370	32 383	31 602
Poultry slaughtered for table purposes—				
Dressed weight	tonnes	37 740	39 386	42 007
Gross value	$'000	67 977	71 784	78 782

(a) *Source:* Western Australian Egg Marketing Board.
Reference: Catalogue No. 7215.0

Beekeeping

The number of productive hives decreased from 21,792 in 1993–94 to 19,919 in 1994–95. Honey production fell to 1,768 tonnes, a decrease of 18.6%. An extensive review of the methods of collecting beekeeping statistics by the ABS, which could result in the collection of production data directly from honey packers rather than beekeepers, is currently underway. Initially, the two collections may run concurrently to evaluate their relative accuracy.

11.20 – BEEHIVES AND PRODUCTION OF HONEY AND BEESWAX

	Unit	*1992–93(a)*	*1993–94(b)*	*1994–95(b)*
Beehives—				
Productive	'000	20	22	20
Unproductive (c)	"	5	7	8
Honey production	tonnes	2 039	2 172	1 768
Beeswax production	"	38	47	35

(a) Includes only establishments with an EVAO of $22,500 and over.
(b) Includes only establishments with an EVAO of $5,000 and over.
(c) Includes nuclei and small pollination hives from which no honey was taken.
Reference: Catalogue No. 7113.5

Forestry

Forest Production

Forest production in Western Australia falls into two broad categories: Sawlogs and Other Log Timber. Sawlogs are predominantly hardwoods. Jarrah and karri remain the predominant hardwood species, amounting to some 715,520 cubic metres or 97.1% of total hardwood production and 32.0% of total log timber production in 1994-95. Native hardwoods contributed 735,138 cubic metres to the hardwood total of 736,783 cubic metres. This represented an increase of 4.9% in total hardwood production from 702,429 cubic metres in 1993-94. Pine production increased by 33.7%, from 224,075 cubic metres to 299,663 cubic metres. Total sawlog production increased by 11.9% from 926,504 to 1,036,446 cubic metres. Total log timber production for 1994–95 rose by 13.2%, from 1,974,677 cubic metres to 2,234,734 cubic metres. Crown Land continued to yield approximately 90% of total log timber as in the past.

Further detail on the history and current management of the State's forests can be found in the Agriculture chapter of the Western Australian Yearbook up to and including the 1993 edition or obtained from the Department of Conservation and Land Management.

11.21 – LOG PRODUCTION, 1994–95

Type	*Crown Land* cubic metres	*Private Property* cubic metres	*Total* cubic metres
Sawlog Timber (a)—			
Hardwood—			
Jarrah	463 393	3 045	466 438
Karri	245 728	3 354	249 082
Marri	12 165	1 782	13 947
Blackbutt	933	212	1 145
Wandoo	851	454	1 305
Sheoak	3 051	20	3 071
Other	131	19	150
Total Native Hardwood	*726 252*	*8 886*	*735 138*
Total Exotic Hardwood	*1 090*	*555*	*1 645*
Total Hardwood	**727 342**	**9 441**	**736 783**
Pine	239 886	59 777	299 663
Total Sawlogs	**967 228**	**69 218**	**1 036 446**
Other log material (b)—			
Hardwood (c)	679 502	92 896	772 398
Softwood	338 959	86 931	425 890
Total Log Timber	**1 985 689**	**(d) 249 045**	**2 234 734**

(a) Sawlog timber from all sources, including veneer, but excluding chiplogs, particleboard, industrial wood, firewood, fencing material, piles, poles and minor forest products.
(b) Includes chiplogs, particleboard logs, industrial wood, pine rounds.
(c) Hardwood residue includes 6,929 cubic metres of marri particleboard/industrial wood and globulus chiplogs on crown lands and 34,090 cubic metres of the same from private property.
(d) Includes 49,395 cubic metres produced by CALM.
Source: CALM Annual Report 1994-95

Fisheries

Following a review of the collection and dissemination of fisheries statistics in late 1993, it was decided that the Australian Bureau of Agricultural Research Economics (ABARE), with assistance from State Fisheries Departments, would become the principal collector of these data.

A detailed history and background to the fishing industry, as well as historical statistics, can be found in editions of the Western Australian Yearbook up to and including 1993.

Reference

ABS Publications

Livestock Products, Australia (monthly) (7215.0)

Agricultural Industries, Financial Statistics, Australia (7507.0)

Agriculture, Western Australia (7113.5)

Value of Agricultural Commodities Produced, Western Australia (7503.5)

Other Publications

Annual Report, Department of Conservation and Land Management.

Annual Report, Western Australian Department of Agriculture.

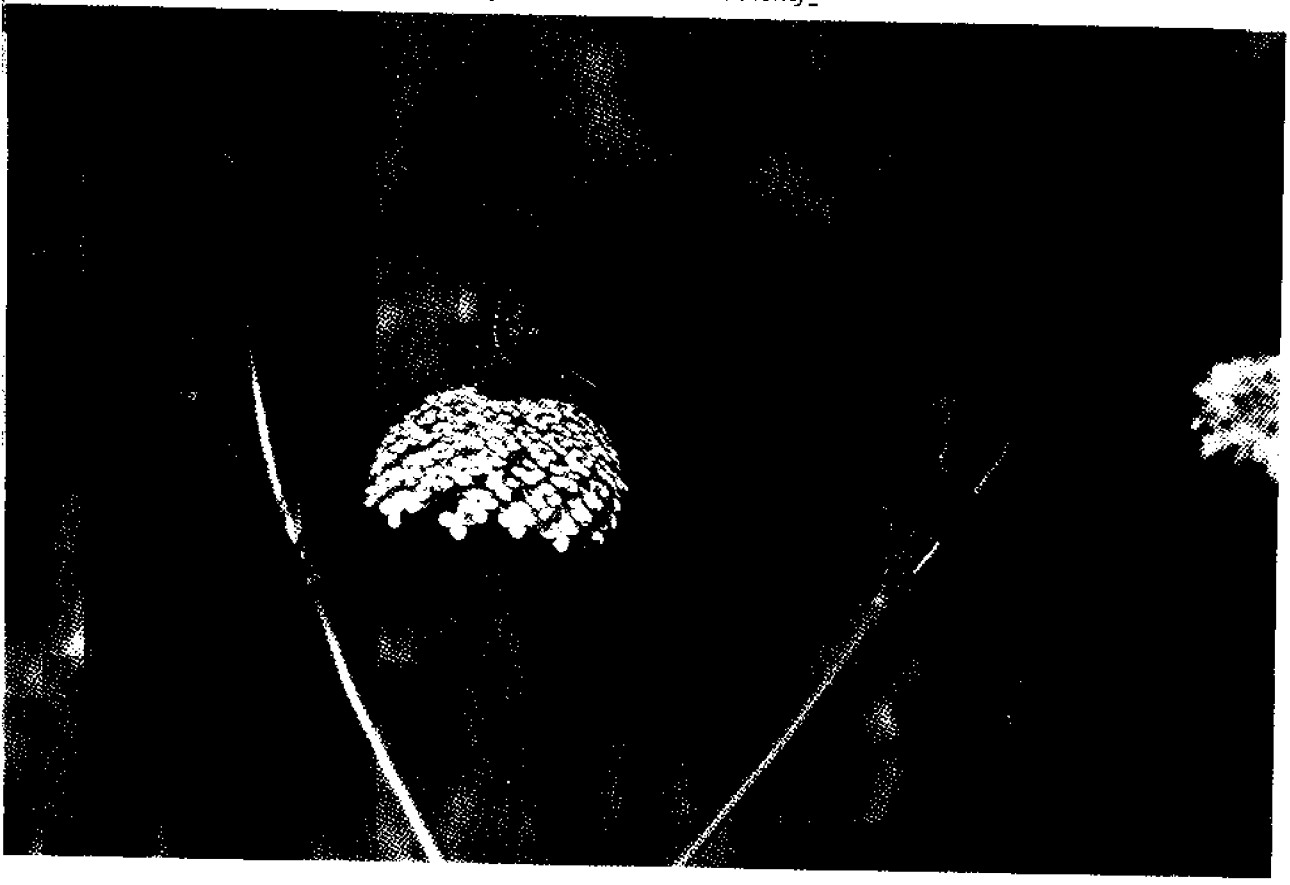


Quokka, Rottnest Island

Courtesy: Western Australian Tourism Commission

Rottnest Island Daisy

Courtesy: Rottnest Island Authority_



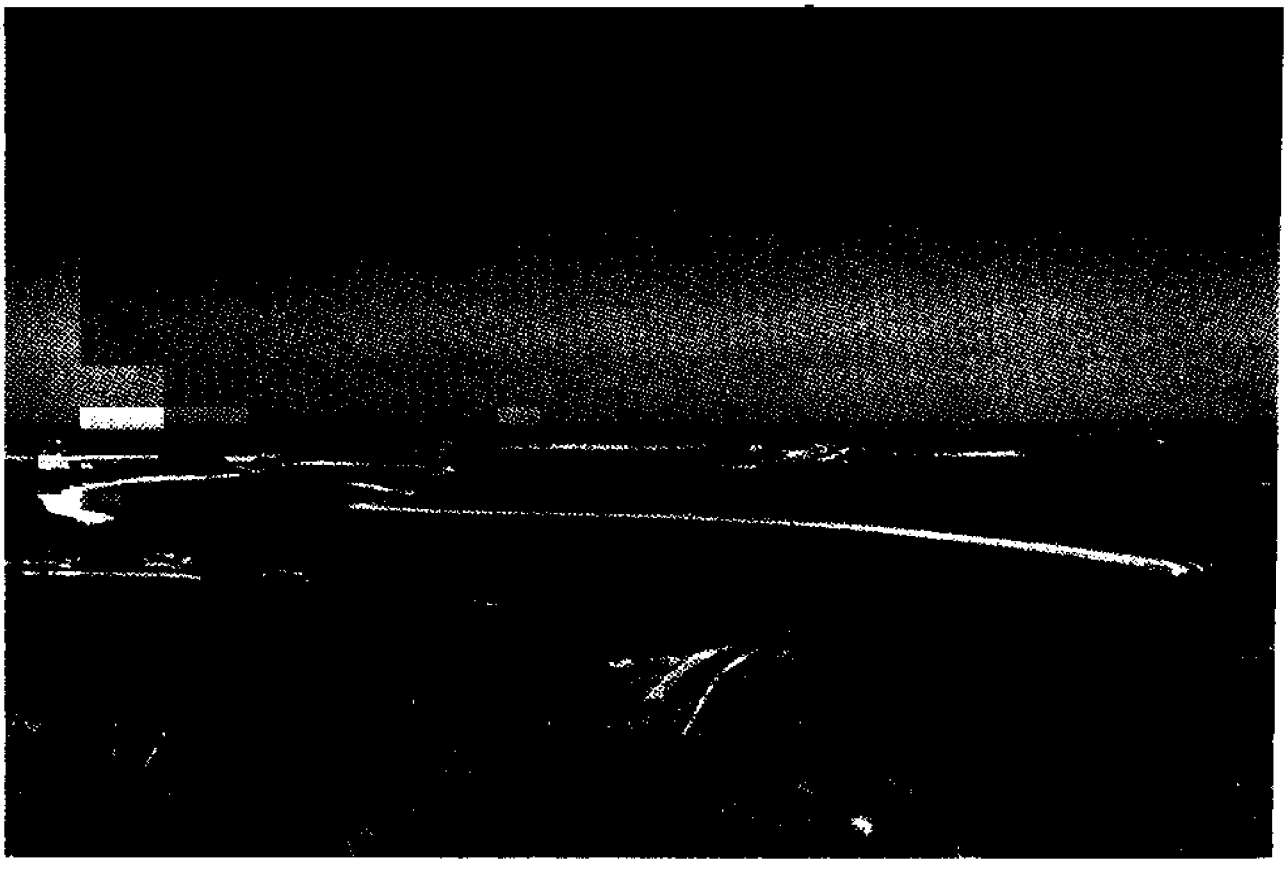


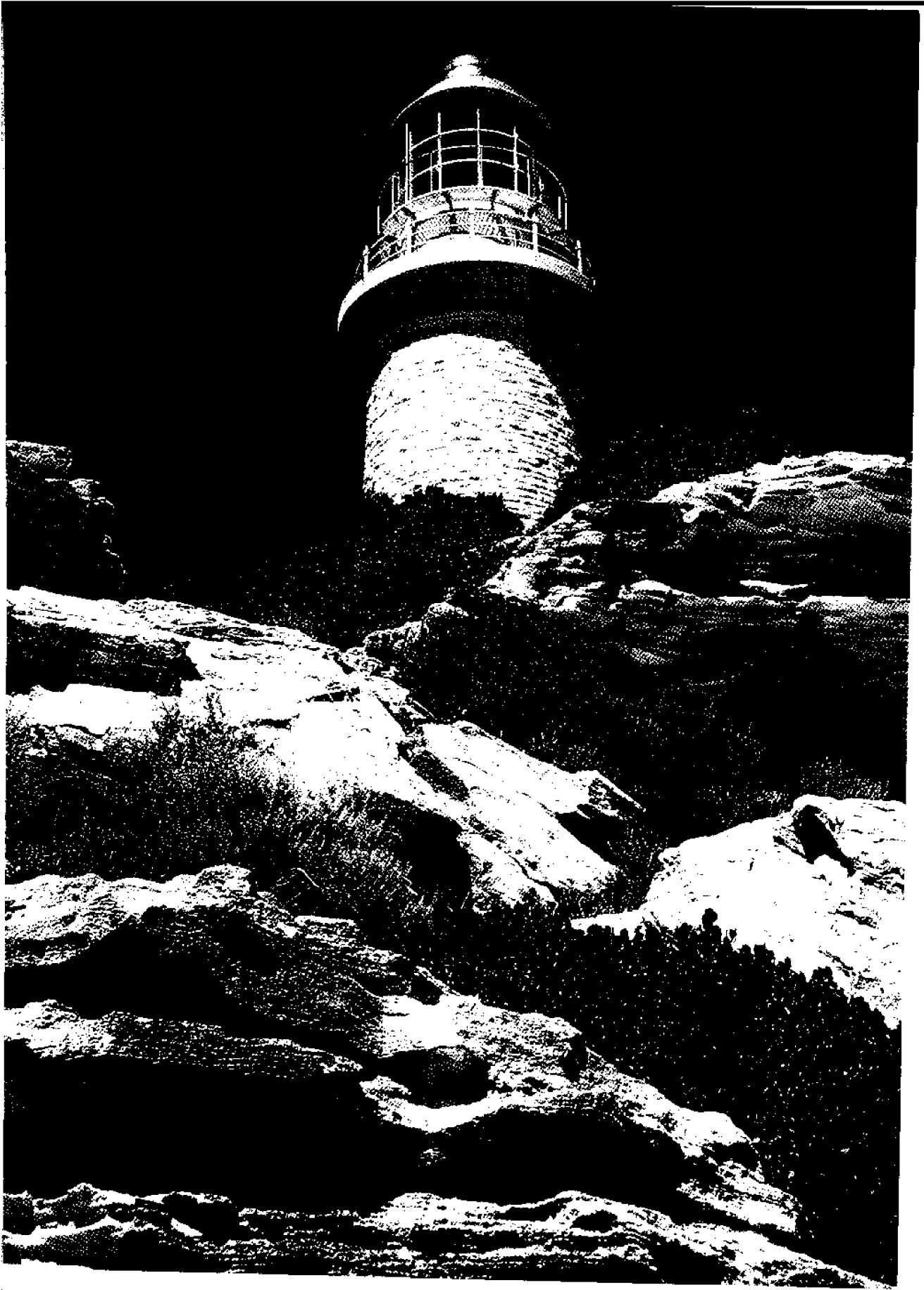
Aerial view of Rottnest Island

Courtesy: Rottnest Island Authority

View from Oliver Hill, Rottnest Island

Courtesy: Pat Barblett





Bathurst Lighthouse, Rottnest Island

Courtesy: Rottnest Island Authority

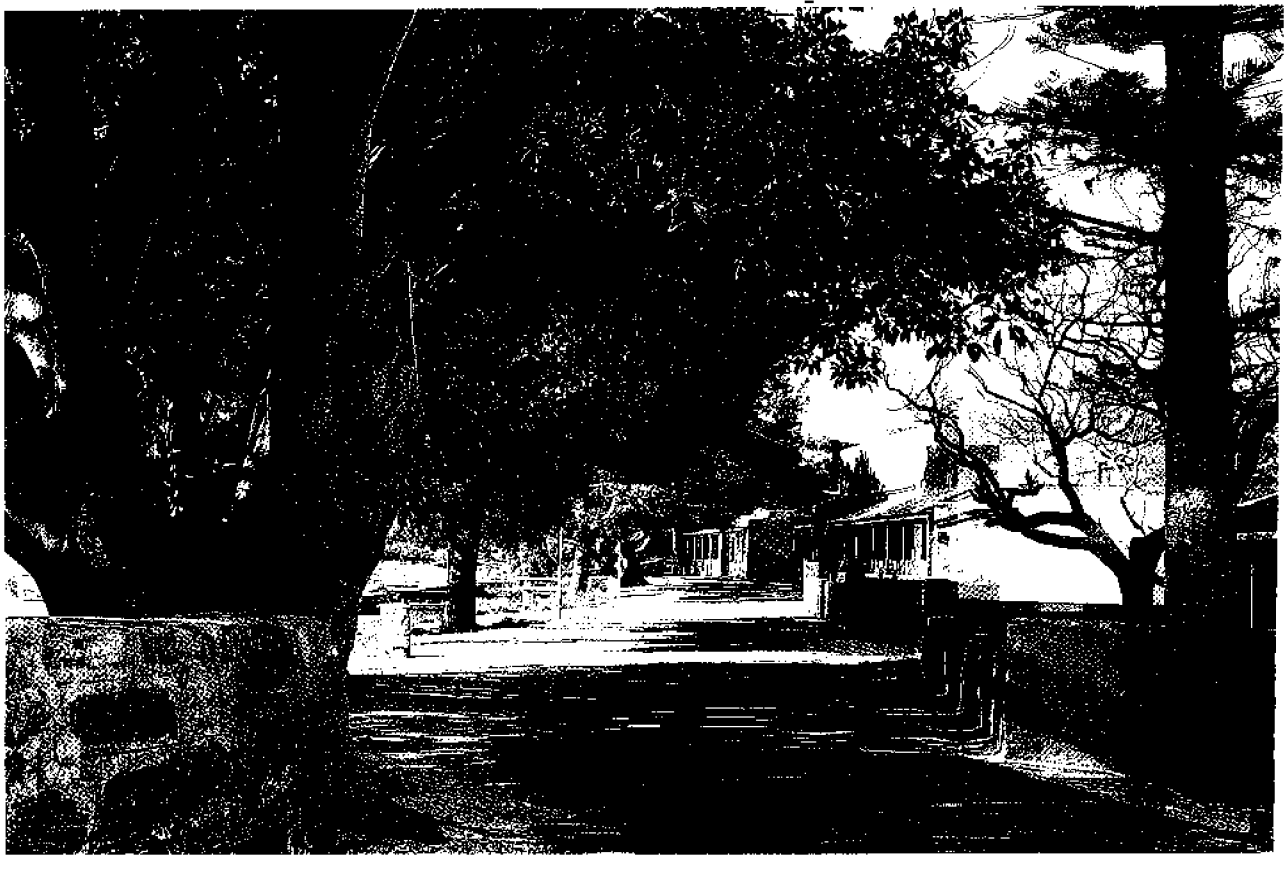


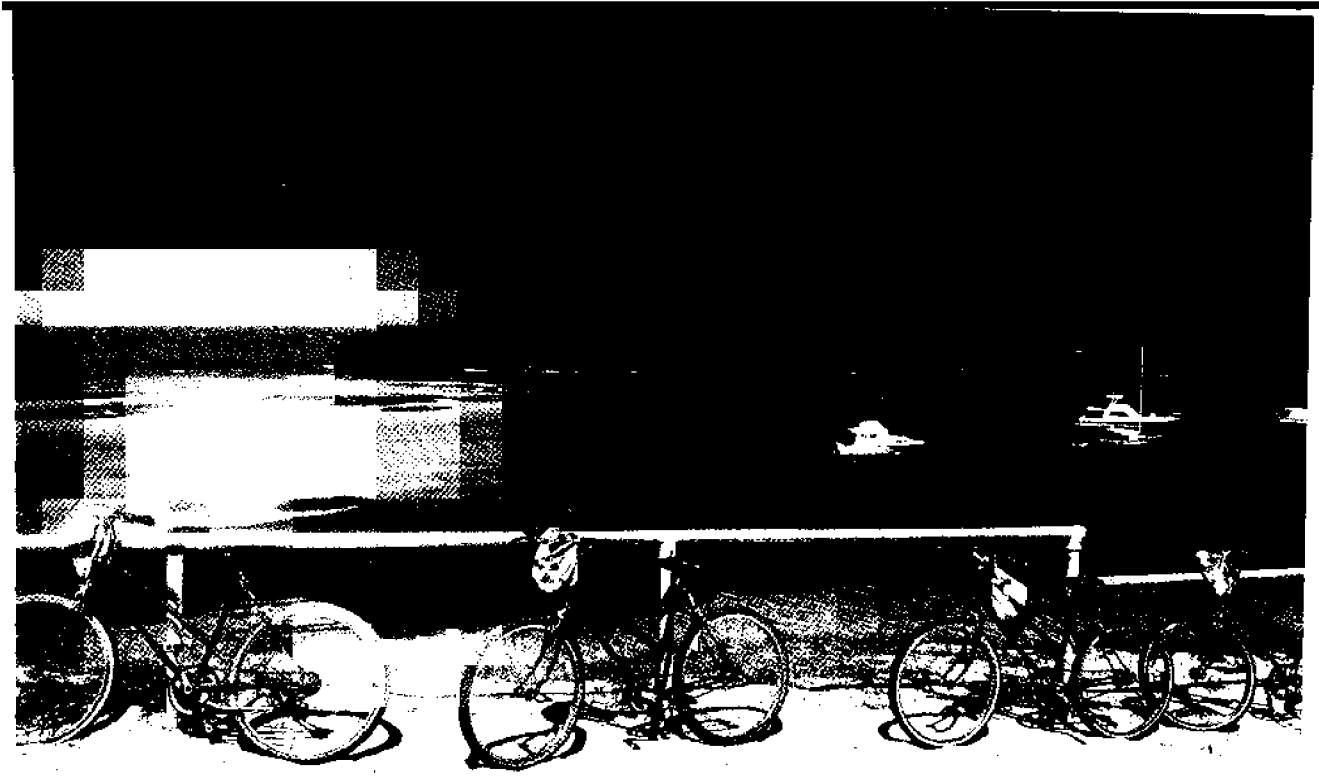
Bathers at the Basin, Rottnest Island

Courtesy: Rottnest Island Authority

Historical Buildings at the Settlement, Rottnest Island

Courtesy: Rottnest Island Authority





Bicycles, the main form of transport on Rottnest Island

Courtesy: Rottnest Island Authority

Fish Hook Bay, Rottnest Island

Courtesy: Western Australian Tourism Commission





One of the many sheltered swimming bays at Rottnest Island

Courtesy: Rottnest Island Authority

West End, Rottnest Island

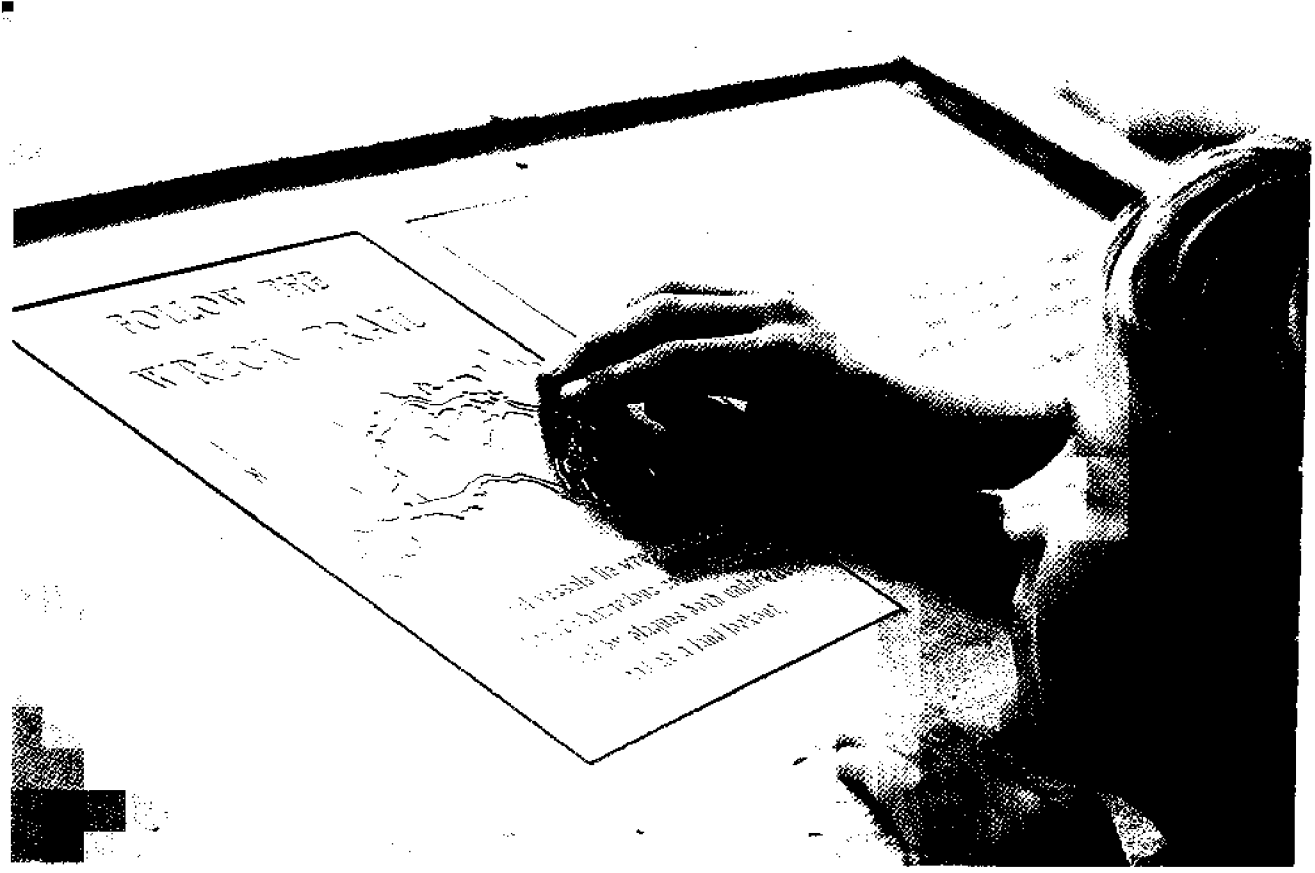
Courtesy: Pat Barblett





Underwater Heritage Trail, Rottnest Island

Courtesy: Rottnest Island Authority

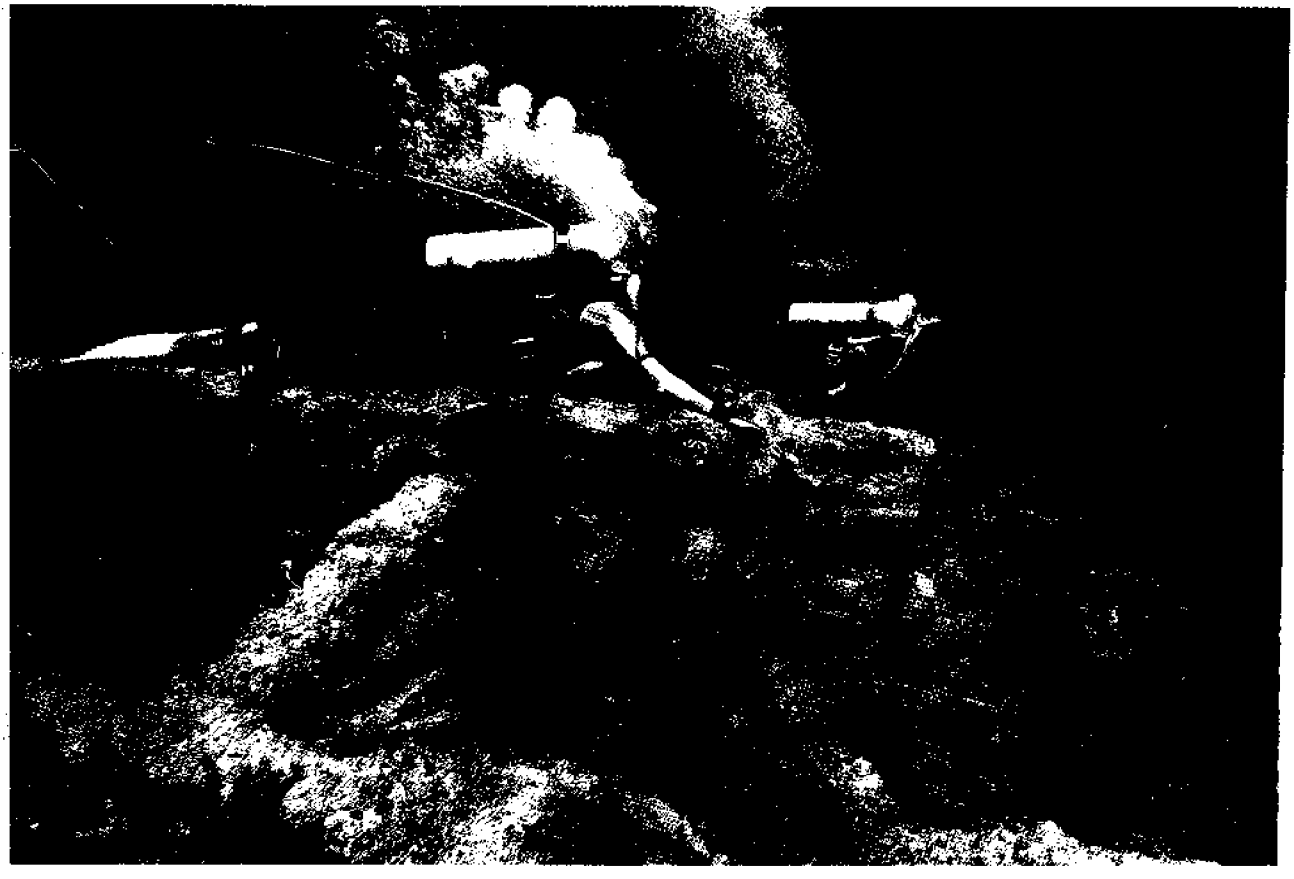


Underwater Wrecks Heritage Trail Plaque, Rottnest Island

Courtesy: Patrick Baker

Diving on Wreck, Rottnest Island

Courtesy: Patrick Baker





West End, Fremantle

Courtesy: Western Australian Tourism Commission

West End, Fremantle

Courtesy: Western Australian Tourism Commission





Blessing of the Fleet, Fremantle

Courtesy: Western Australian Tourism Commission

Mews Road Boat Harbour, Fremantle

Courtesy: Western Australian Tourism Commission



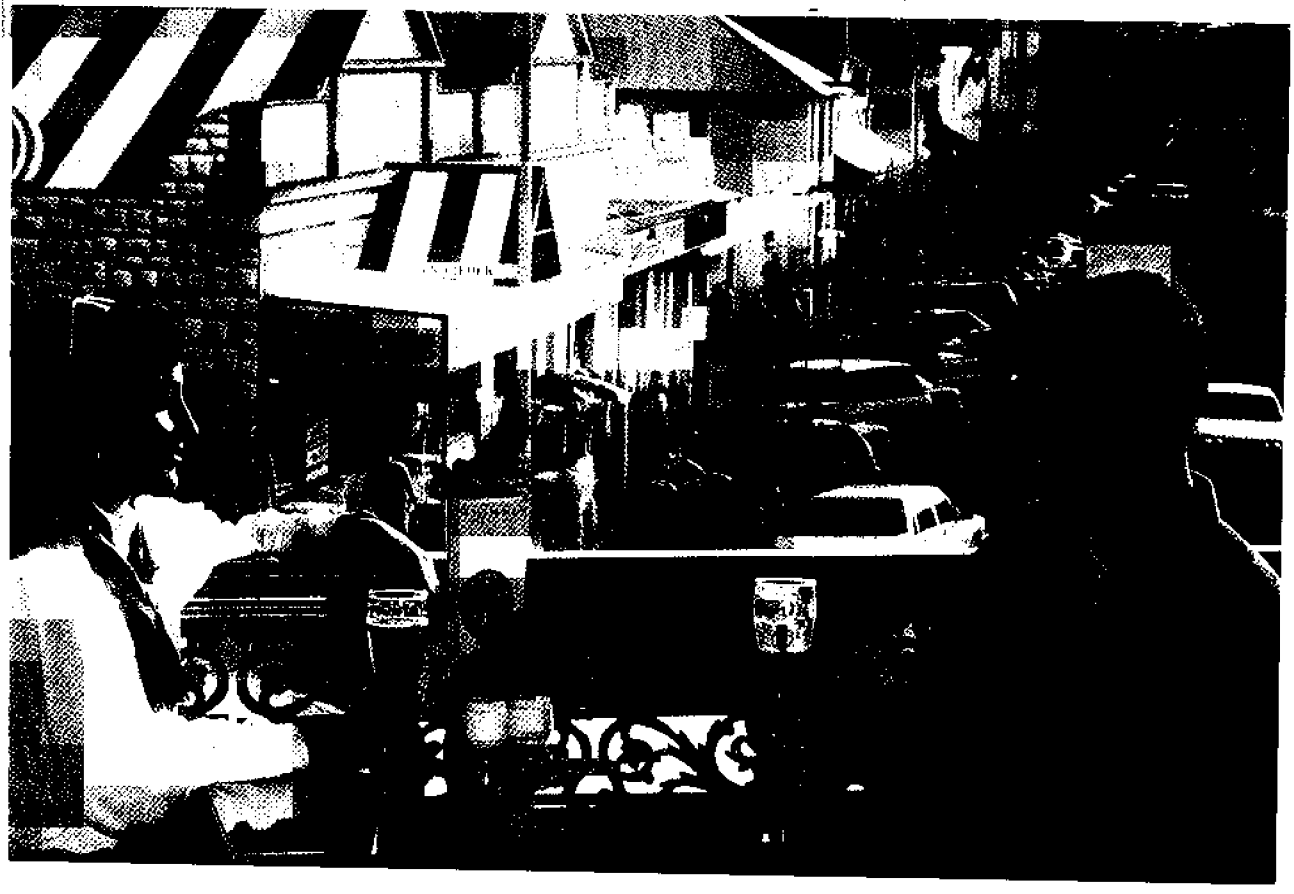


Markets, Fremantle

Courtesy: Western Australian Tourism Commission

Street scene, Fremantle

Courtesy: Western Australian Tourism Commission



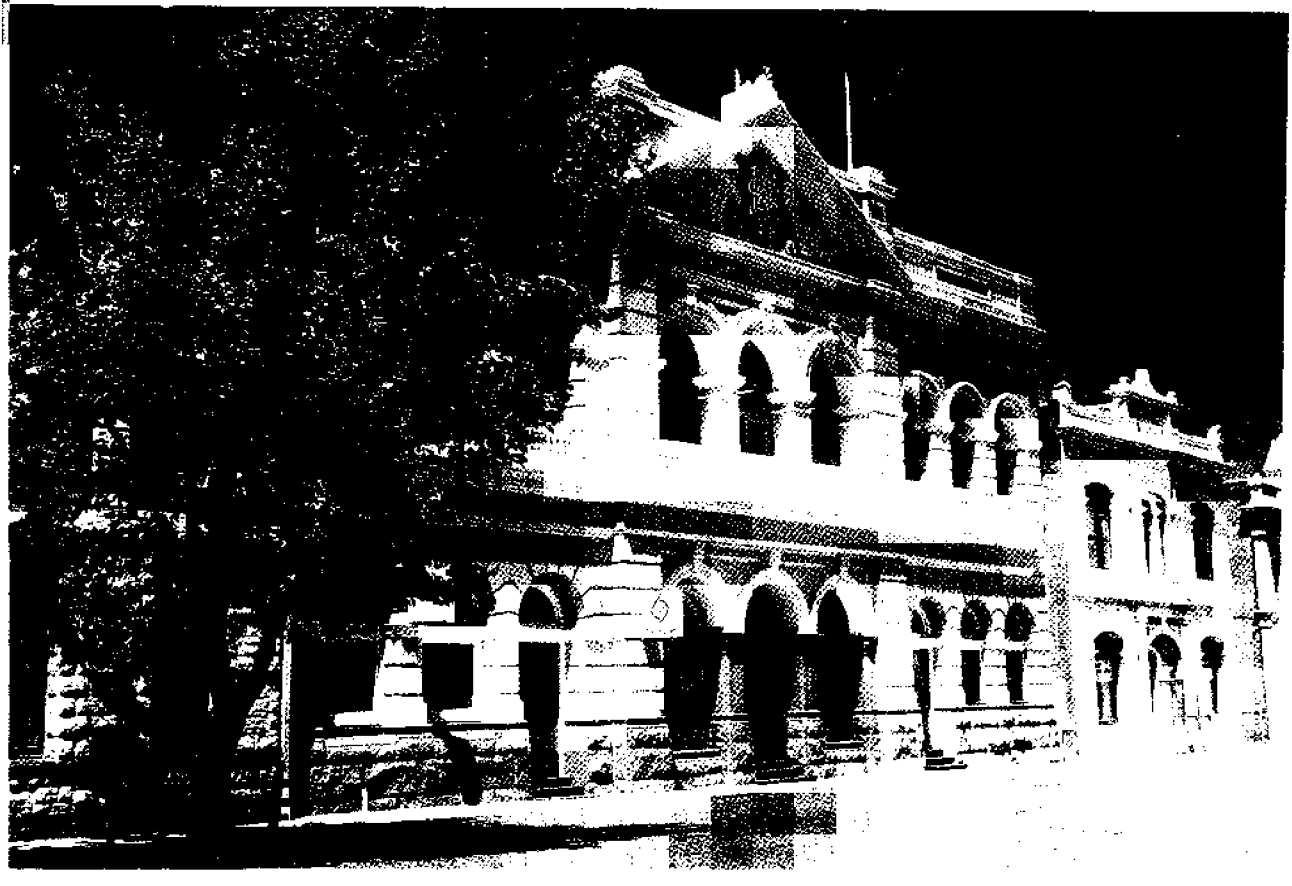


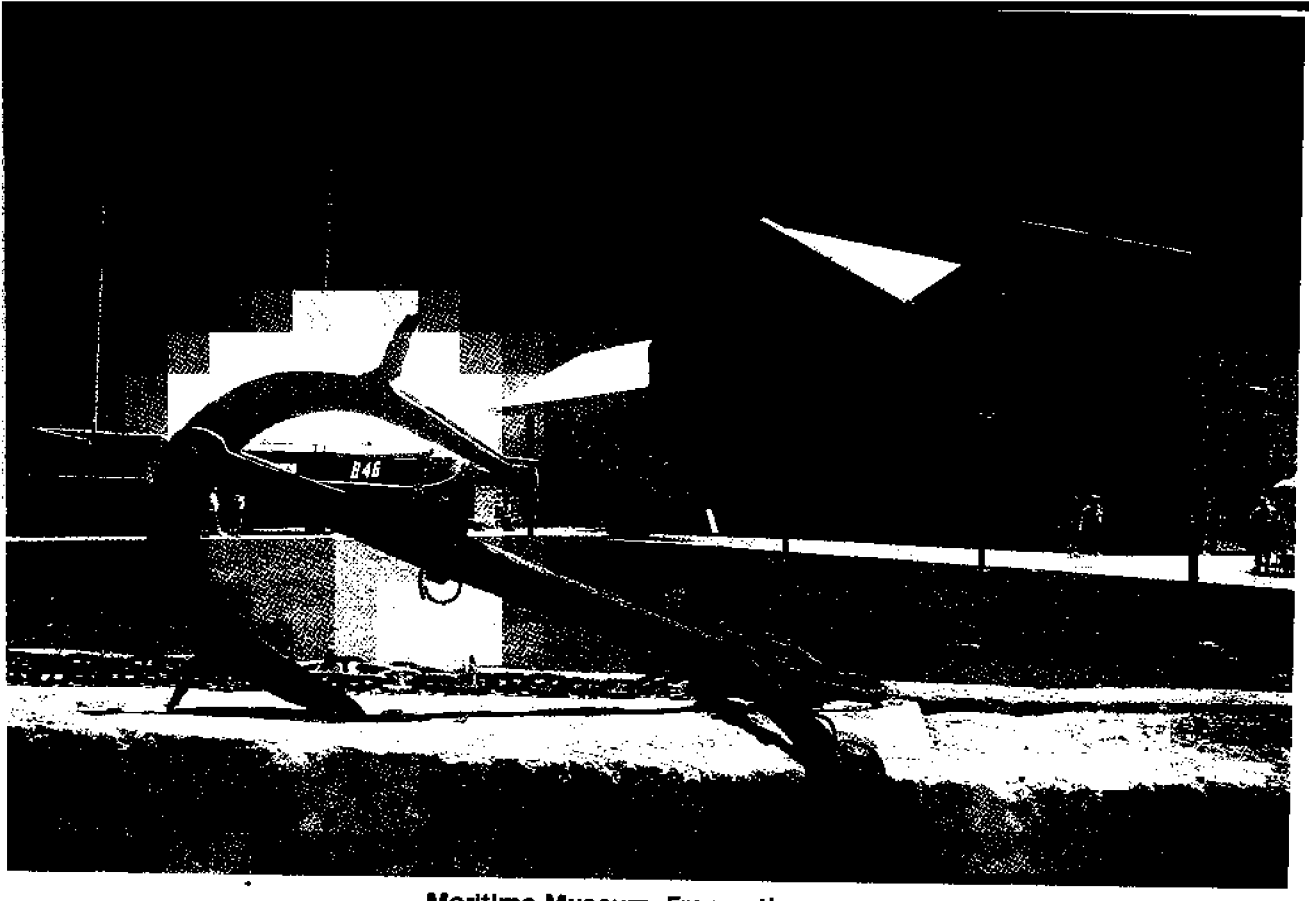
Samson House, Fremantle

Courtesy: Western Australian Tourism Commission

P & O Building, Fremantle

Courtesy: Western Australian Tourism Commission





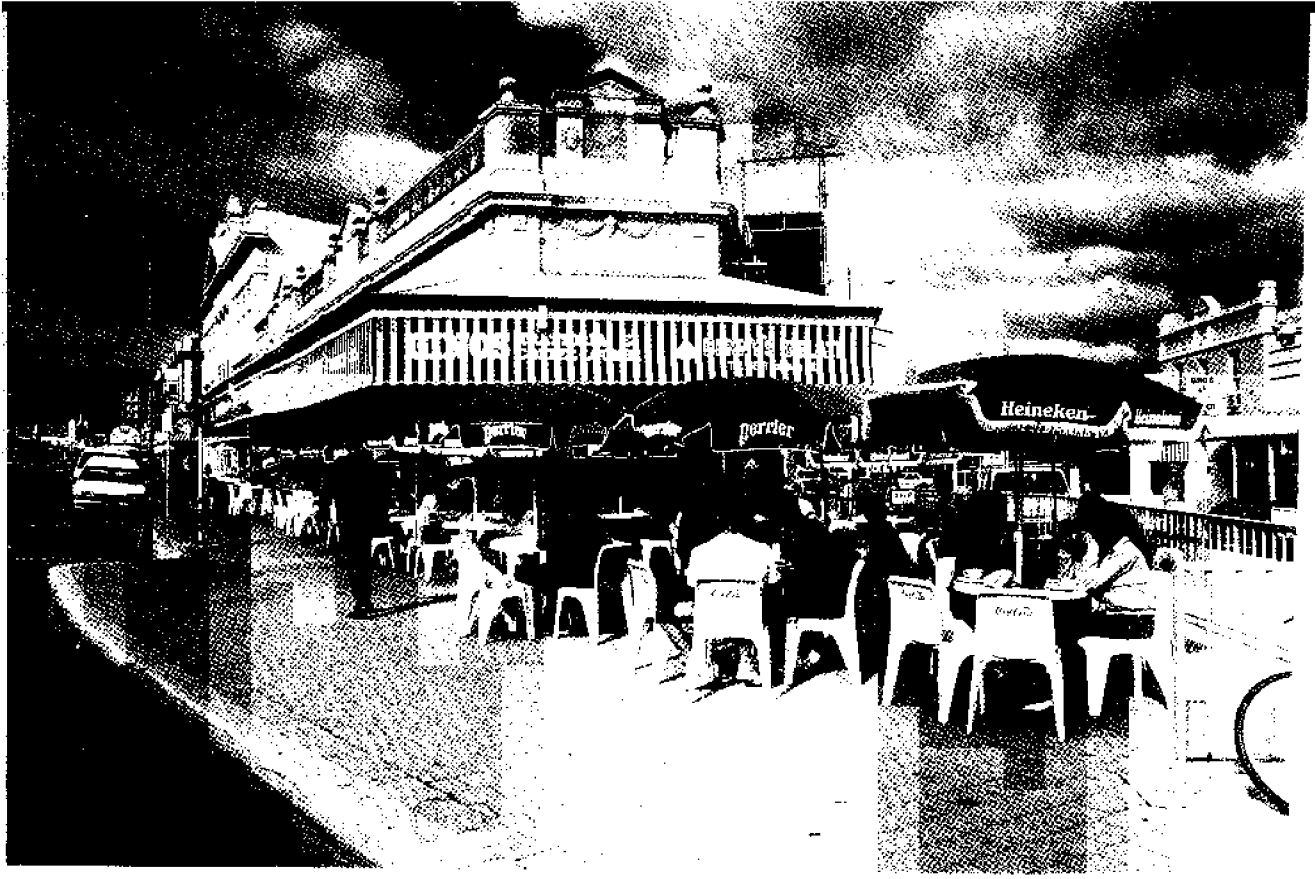
Maritime Museum, Fremantle

Courtesy: Western Australian Tourism Commission

Lighthouse at entrance to Harbour, Fremantle

Courtesy: Western Australian Tourism Commission





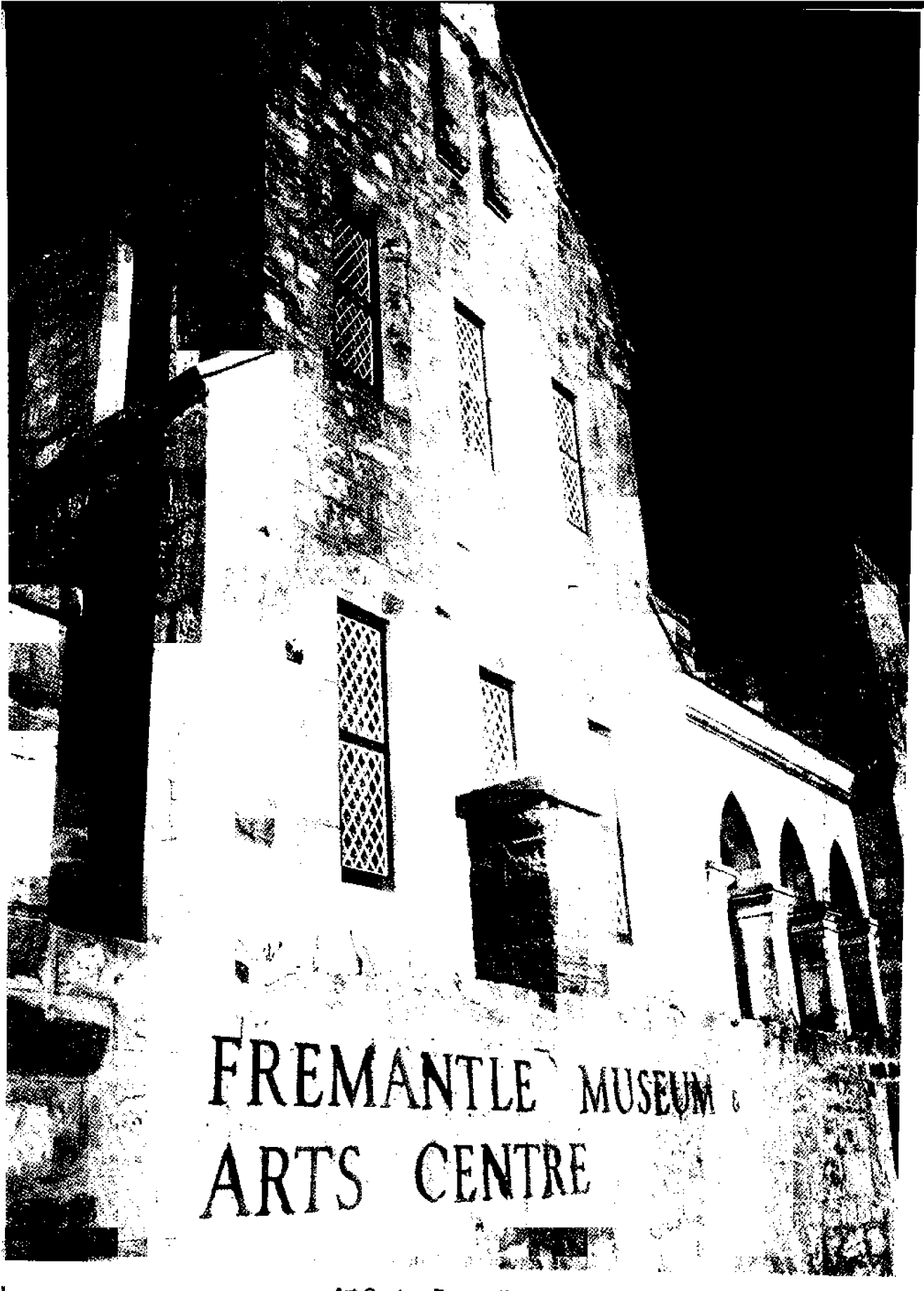
Cappuccino Strip, Fremantle

Courtesy: Western Australian Tourism Commission

Cafes, Fremantle

Courtesy: Western Australian Tourism Commission





Art Centre, Fremantle

Courtesy: Western Australian Tourism Commission

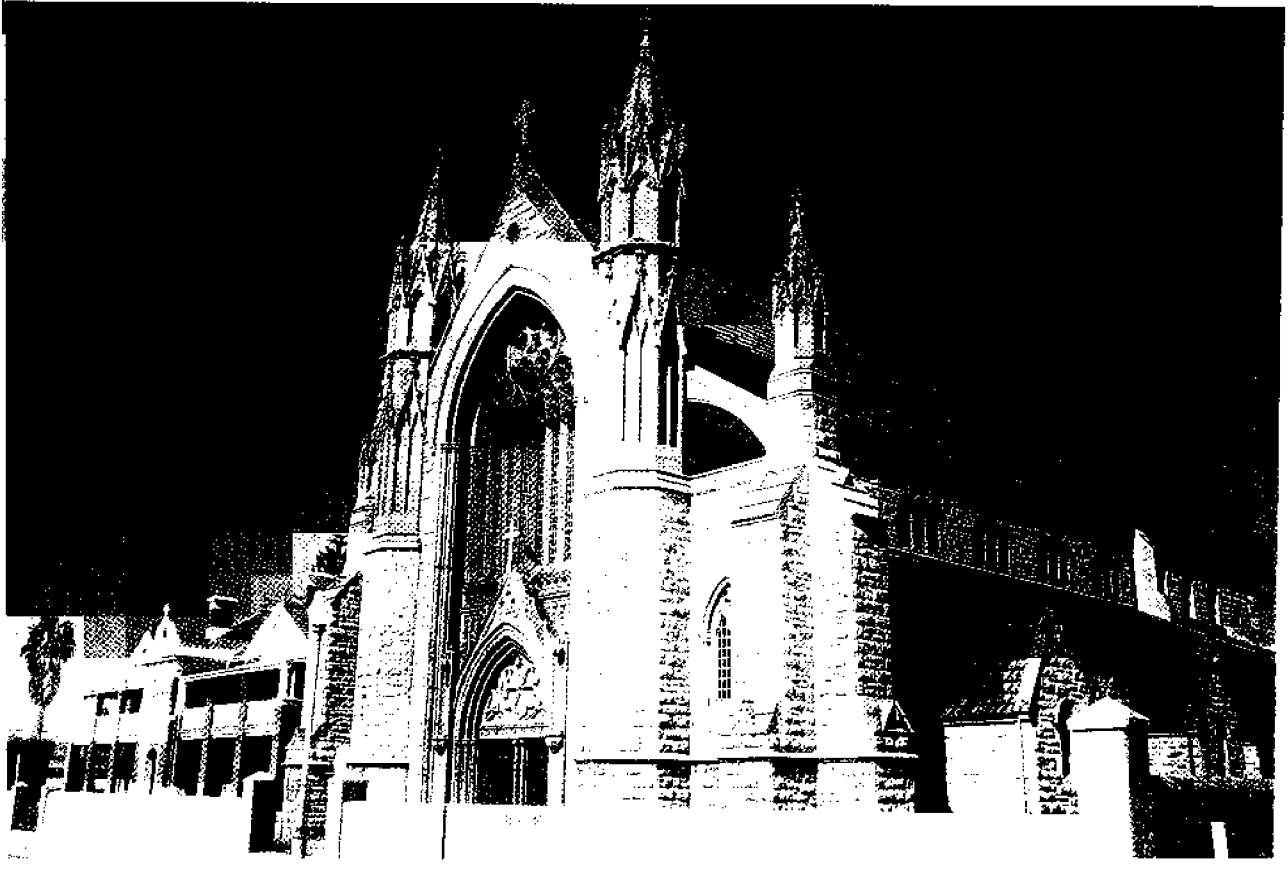


High Street, Fremantle

Courtesy: Western Australian Tourism Commission

St. Patricks Church, Fremantle

Courtesy: Western Australian Tourism Commission



Mining, Energy And Water Resources

Chapter 12

MINING, ENERGY AND WATER RESOURCES

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Chapter 12

MINING, ENERGY AND WATER RESOURCES

Mining

The Western Australian resources sector continues to be a major influence on the State's economy with nearly all the minerals and energy commodities recording increases during 1995. The value of production rose as a result of increased production and sales predominantly in the oil, nickel, liquefied natural gas (LNG) and mineral sands markets, rather than as a result of price rises.

Western Australia accounts for over 55% of the nation's total mineral exploration expenditure; this increased by 3.6% in 1995 to $495 million. Private capital expenditure in mining reached $4,238 million in 1995, an increase of 16% from the previous year. The Department of Resources Development states that the present status of projects within the resources sector is:

- $5.8 billion worth of projects under construction (38 projects),
- $4.3 billion worth of projects committed (22 projects), and
- $12.2 billion worth of projects under consideration (51 projects).

These ventures have the potential to increase investment in Western Australia's resources sector.

The North West Shelf liquefied petroleum gas (LPG) plant, a fines processing plant at Paraburdoo, the Jundee gold mine, the expansion of nickel operations and the Wanaea/Cossack oil and gas field are some of the projects expected to bolster the sector during 1996–97.

Downstream processing of resources, the deregulation of the gas market and the Goldfields gas pipeline, combined with strong growth in demand in the Asian region indicate further prosperity for the mining sector in the coming year.

Mineral exploration is vital to resource development and steps have been taken to amend the State's Mining Act and Regulations to reduce disputation. The main changes include:

- special prospecting licences ranging in tenure from three months to four years,
- the removal of legal restrictions on aerial surveys, and
- the introduction of a ballot system where competing tenement applications are lodged on ground previously relinquished or forfeited.

Environmental Policies

In 1994–95, the State adopted a policy for the management of marine reserves, including mineral and petroleum exploration, to maintain the balance between the environment and development objectives. In September 1995, Western Australia joined the National Environment Protection Council. The prohibition of further drilling in the Ningaloo Marine Park was a result of the Government's adoption of these environmental policies.

The Commonwealth Environmental Protection Agency, major mining companies and mineral industry associations combined to produce a booklet entitled 'Best Practice in Environmental Management in Mining' to promote the concept of environmental management techniques in the mining industry.

Research and Development

The State is currently involved in research projects specifically relating to the mining industry. A three-year joint project which began in 1994 between the University of Western Australia, the Australian Centre for Geomechanics and the Department of Minerals and Energy is nearing completion. This study, which undertook research into rehabilitation techniques for tailings dams, is being funded by the gold mining industry and the State Government.

The northern Goldfields has been selected for a study into the resource potential and infrastructure needs of the area. The development of a co-ordinated approach between government and industry and the identifying of suitable cost sharing arrangements for mineral developments are the major aims of the study. Further development potential created by the Goldfields gas pipeline was a contributory factor in the selection of this region for the study.

12.1 – MINERAL PRODUCTION

Mineral	Unit	1994 Quantity	1994 Value	1995 Quantity	1995 Value
		No.	$000	No	$'000
Base metals—					
Copper	'000 t	35(r)	68 134(r)	23	72 410
Lead	'000 t	20(r)	7 321(r)	13	6 697
Zinc	'000 t	124(r)	85 144(r)	120	81 738
Bauxite-Alumina	'000 t	7 933	1 684 581(r)	8 067	1 757 356
Clays	'000 t	176	7 433(r)	147	4 683
Coal	'000 t	5 035	234 017(r)	6 062	280 656
Construction materials—					
Aggregate	'000 t	110	660	424	2 462
Gravel	'000 t	126(r)	635(r)	148	803
Rock	000 t	118	1 877	50	633
Sand	000 t	1 895(r)	8 835(r)	1 705	7 664
Diamonds	000 ct	27 716	470 343(r)	23 452	480 150
Dimension stone—					
Black granite	t	1 028	316	0	0
Quartz rock	t	795	36	0	0
Gem, semi-precious & ornamental stone	kg	296 427	1 611	164 424	750
Gold	kg	192 480(r)	3 257 456(r)	189 353(e)	3 161 566(e)
Gypsum	'000 t	210(r)	2 561(r)	217	2 440
Heavy mineral sands	000 t	2 053	416 283	2 139	548 457
Iron ore	000 t	124 263	2 630 615	135 966	2 980 689
Limesand-limestone	'000 t	2 252(r)	15 148(r)	2 186	14 675
Manganese	'000 t	203(r)	22 742(r)	161	19 650
Nickel concentrate	'000 t	677(r)	630 129(r)	752	1 094 172
Petroleum—					
Crude oil (incl. condensate)	ML	11 094	1 630 944	12 512	1 950 462
Liquefied natural gas	GJ	335 107	1 080 172	375 374	1 390 750
Natural gas	GL	4 915	441 965	5 827	421 923
Salt	'000 t	6 861(r)	153 489(r)	7 291	155 813
Silica-silica sand	'000 t	637	5 765	611	5 609
Silver	kg	58 799(r)	12 448(r)	48 263	10 491
Talc	'000 t	107(r)	7 847(r)	123	9 643
Tin-tantalum-lithium—					
Spodumene	t	61 708(r)	11 247	80 135	12 019
Tantalite	t	262(r)	22 117	361	33 143
Tin metal	t	209	1 409	429	2 933
Total value			*12 913 280*		*14 510 437*
Total value other minerals			*41 544*		*71 872*
Total value all minerals			**12 954 823**		**14 582 310**

(e) estimate (r) Revised from previous edition.
Abbreviations: t-tonnes, ct-carat, ML Megalitres, GJ-Gigajoules, GL-Gigalitres
Source: Department of Minerals and Energy

Coal

The impact and development of the natural gas resources in Western Australia's far north have taken precedence over the State's other power generation facilities. However, coal generated power will play an important part in the economic growth of the region served by the South West Grid. A new 300MW coal-fired power station at Collie, which is due for commissioning in 1998, will supplement the existing scheme. There are six significant coal deposits located within the southern half of Western Australia but the Collie Basin is the only field presently in production. The Collie Basin has produced one hundred million tonnes of coal since beginning operations in 1889 and its reserves are estimated to be viable for another 100 years. Coal accounts for 68% of the identified energy resources of the State and reserves would last for approximately 1300 years at the current level of production.

The first discovery of coal in Western Australia was made by Assistant Surveyor General, A.C. Gregory, in 1846 at Irwin River, 320 km north of Perth. During 1847–48 more deposits were located on the south coast and around the Murray River by the Western Australian Mining Company. Wood was abundant and readily available during these times and as a result there was little demand for coal as an alternative fuel source.

Between 1880 and 1890 major developments in the State's economy created a renewed interest in coal mining with the Irwin River deposit as the favoured site. Coal had been discovered in Collie in 1883. In the mid 1890s tests revealed a significant deposit in the area and the emphasis for a viable operation switched to this locality. Construction of the Brunswick to Collie railway line was completed in 1898 and the first government contract to supply Collie coal was awarded when the site commenced commercial production in November of that year.

All mining at Collie was carried out underground until 1943 when open-cut mining began. The open-cut method of mining was considered to be more efficient but initially production by this method was limited to 30% of total mining output. The unprecedented demand for coal created by World War II saw the ratio of open-cut to underground production increase to 80:20 during the war years. Considered to be no longer economic, underground coal mining ceased in Western Australia on 30 June 1994.

Statewide demand for coal is estimated to increase 45% over the next 15 years with power stations at Muja, Kwinana and Bunbury expected to consume three quarters of the total production. Currently there are two mining companies operating in the Collie coal basin which, apart from supplying these power stations, provide coal to the alumina, nickel, mineral sands and cement industries. Expansion of these operations and further increases in downstream processing procedures will ensure a continued demand for coal.

Known Coal Deposits In Western Australia

- Collie
- Wilga
- Boyup
- Vasse River
- Hill River - Eneabba
- Hill River - Jurien
- Irwin River
- Green Head
- Bookara
- Talisker
- Liveringa
- Balladonia
- Scaddan



Collie Basin Operations

Courtesy: Western Collieries Ltd

ROYALTIES

Source: Department of Minerals and Energy (Royalties, Economic Policy & Public Affairs Division)

In Western Australia royalties are payable to the State for minerals owned by the Crown and all petroleum recovered from the ground. The amount and payment arrangements are outlined in legislation under either the *Mining Act, 1978*, Petroleum Acts, or Special Agreement Acts.

Minerals and Ownership
In Western Australia the Crown owns virtually all gold, silver and other precious minerals existing in their natural form. The Crown also owns all other 'minerals' except where they are found on land which was allocated a freehold title before January 1899.

Under the Act, minerals are defined as naturally occurring substances including evaporites, limestone, rock, gravel, shale, sand and clay. The Act does not cover soil and petroleum substances. The definition of a mineral excludes the following substances when found on private land:

a) Limestone, rock or gravel,
b) Shale, other than oil shale,
c) Sand, other than mineral sands, silica sand or garnet sand,
d) Clay, other than kaolin, bentonite, attapulgite or montmorillonite.

Royalties and Production Reporting
Where minerals are the property of the Crown, a mining tenement is required from the Department of Minerals and Energy before any mining operations may be undertaken. For these tenements, the Act includes regulations which prescribe royalty rates, payment arrangements, penalties and exemptions.

Penalties
It is an offence under the Regulations not to submit a production report or royalty return within the time and in the form specified, and not to keep the necessary records.

The Act also allows for the production and inspection of records and includes offences and penalties for persons failing to comply with requests for information required to enable assessment of royalties.

In addition to the State being able to take recovery action through the Courts, the Act provides for forfeiture of tenements where royalties are not paid as prescribed.

12.2 – MINERALS AND PETROLEUM ROYALTY RECEIPTS

Mineral	1994 Value	1995 Value	1995 Growth
	$'000	$'000	%
Base metals—			
Copper	1 904	3 320	74
Lead	176	531	201
Zinc	4 315	4 284	–1
Bauxite-Alumina	29 078	28 353	2
Clays	324	250	–23
Coal	11 043	13 727	24
Construction Materials—			
Aggregate	3	153	4 488
Gravel	44	39	-11
Rock	40	8	-79
Sand	643	449	-30
Diamonds	39 938	32 382	-19
Dimension stone	4	0	100
Gem, semi-precious & ornamental stone	50	53	8
Gold	352	372	6
Gypsum	63	64	1
Heavy mineral sands	8 326	18 959	128
Iron ore	139 441	153 027	10
Limesand-limestone	384	61	-84
Manganese	2 040	860	-58
Nickel concentrate	10 872	22 482	107
Petroleum—			
Condensate	7 665	19 779	158
Liquefied natural gas	25 942	63 599	145
Natural gas	12 249	20 084	64
Oil	38 339	50 892	33
Salt	1 370	1 692	23
Silica-silica sand	316	236	25
Silver	364	249	–32
Talc	60	31	-48
Tin-tantalum-lithium—			
Spodumene	433	634	46
Tantalite	393	817	108
Tin	42	70	67

Source: Department of Minerals and Energy

Energy

On 1 January 1995, the State Electricity Commission of Western Australia (SECWA) was divided into separate electricity and gas corporations, trading as Western Power and AlintaGas. The Office of Energy, a regulatory agency, was also established. (Prior to 1 January 1995 Western Australia was the only State to have a combined electricity and gas energy service). This initiative was aimed at maximising the scope for efficiency improvements in the electricity and gas generation, transmission and distribution industries in Western Australia. The potential for private firms to compete in the energy sector has been increased substantially.

As corporatised government businesses, Western Power and AlintaGas operate and adhere to private company guidelines with Boards of Directors and managerial autonomy. The State Government continues as the sole shareholder but with less direct involvement.

AlintaGas

AlintaGas operations comprise the purchase, transmission, distribution and sale of natural, tempered liquefied petroleum and synthetic natural gases to commercial, industrial and domestic customers.

Much of Australia's natural gas reserves are located in Western Australia. AlintaGas operates the Dampier to Bunbury Natural Gas Pipeline and supplies gas to 350,000 residential and business customers. With market deregulation, it will have to compete with other organisations to obtain major industrial contracts for the sale of gas. AlintaGas already supplies gas, under contract, to 240 large industrial and commercial customers.

The North West Shelf and adjoining areas hold massive reserves of natural gas. The Pilbara and the Goldfields regions are potentially the greatest users of natural gas for mineral processing and power generation. In the South West, alumina and mineral sands industries, which are almost entirely reliant on gas energy, are expected to expand.

Western Power

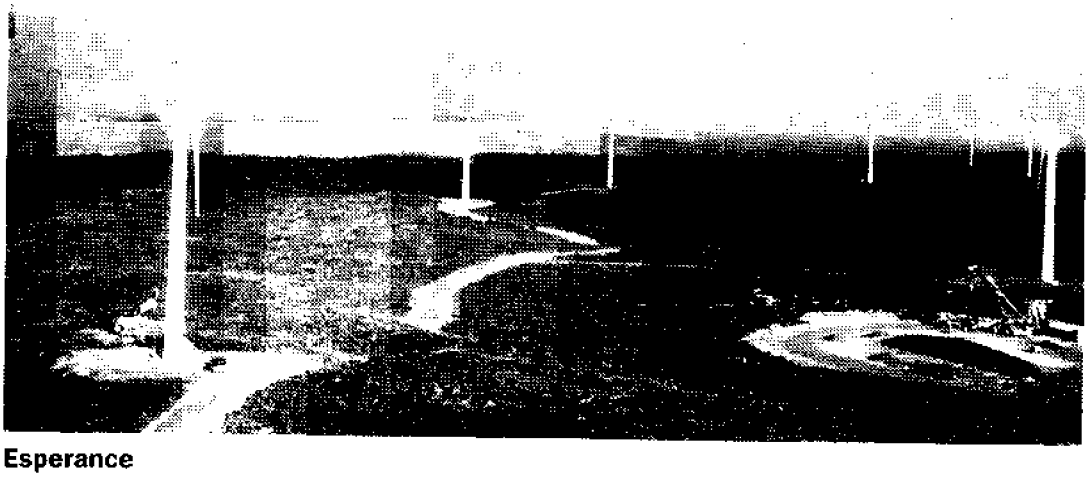
Western Power is the utility responsible for electricity supplies and operates two power grid systems, one for the Pilbara and the other for the south-west of the State. The South-West Interconnected System services an area from Kalbarri to Bremer Bay in the south and from Perth east to Kalgoorlie. The Pilbara Interconnected System links Karratha, Dampier, Cape Lambert, Wickham, Roebourne, Port Hedland and Goldsworthy. Outside the electricity grid systems, Western Power operates smaller diesel power stations and provides support services for Aboriginal village power stations in remote areas of the State.

Wind-Generated Power

In October 1992, a contract with Australian Defence Industries to install a 2 megawatt (MW) wind farm at Ten Mile Lagoon, 14 km west of Esperance, was commissioned. The project was completed late in 1993 at a cost of approximately $5.8 million. The wind farm consists of nine 225 kilowatt (kW) variable pitch wind turbines and is capable of supplying up to 30% of Esperance's power needs. During its first year of operation it was estimated that over half a million dollars worth of fuel oil was saved. The wind farm produced 4.6 million kW hours of electricity which resulted in a 3,600 tonne reduction in carbon dioxide emissions normally associated with diesel fuel generated power.

As the wind farm is located in a coastal flora reserve, extensive consultation with the Environmental Protection Authority, the Department of Conservation and Land Management and the Shire of Esperance ensured that minimal environmental damage occurred during construction.

Throughout Western Australia there has been extensive wind monitoring. Areas extending from 800 km to 1200 km north of Perth could become viable for future wind-generated energy. Land near Albany, located on the south coast, has already been reserved for this purpose.



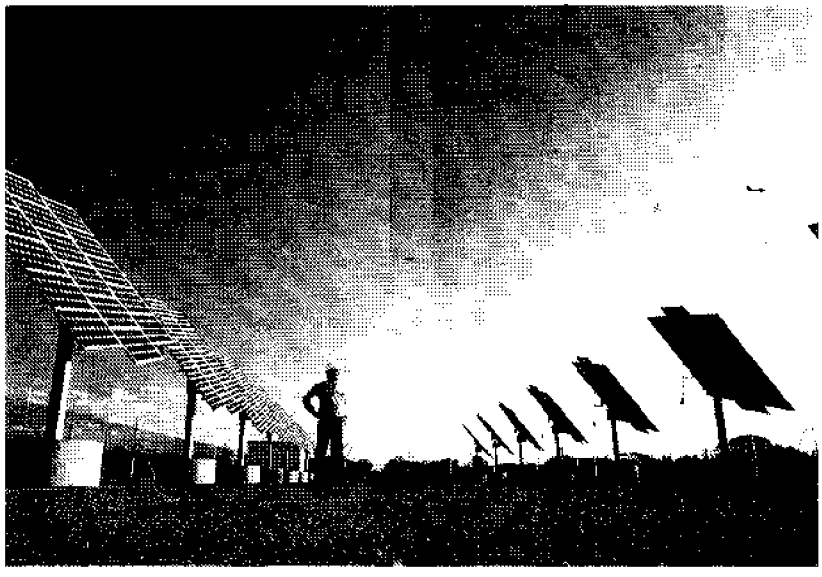
Esperance Windmills

Courtesy: Western Power

Solar Energy

Located 500km north of Perth, Kalbarri is the site of the first large scale photovoltaic (PV) grid-connected power system in Western Australia. Photovoltaic cells convert sunlight directly into electricity using semiconductor metals, most commonly made of silicone. The 20kW research and demonstration system became operational in late 1994. Contributions to the project were made from a Western Australian research consortium including SECWA (now operating as Western Power), Advanced Energy Systems, Murdoch University Energy Research Institute, Curtin University Power Electronics Research Unit and the Federal Energy Research and Development Corporation. The technology for the highly efficient silicone solar cells was developed in Australia and the Kalbarri project was the first grid-connected system to be installed in Australia.

At present the cost of grid-connected PV electricity is considerably more than conventionally generated power but will become more cost effective as the price of PV systems continues to decline.



Kalbarri Photovoltaic

Courtesy: Western Power

Ord River Hydro-Electric Scheme

Construction on the 30MW Ord River hydro-electric power station to convert water energy from Lake Argyle into electricity was completed in April 1996 at a cost of $75 million. The overall benefits of Ord Hydro to the environment and the economy will be a reduction of carbon dioxide emissions of 54,000 tonnes a year and savings of $20 million. The scheme will reduce fuel oil consumption by 60 million litres a year, replacing three existing diesel power stations. The development of the Kununurra townsite and the Argyle Diamond Mine has caused the demand for electricity to increase significantly. The project also involved the construction of a 132kV transmission line to Argyle Diamond Mine (to the south) and Kununurra (to the north).

Tidal Energy

In the North-West of the State there is considerable interest in the potential for tidal energy because of the high tides and large tidal basins common to this region. A feasibility study into the viability of a 30MW tidal energy project on the Pilbara coast is currently being conducted by Western Power and the Energy Research and Development Corporation. The Cape Keraudren site would be connected to the Pilbara Interconnected System power grid which supplies Karratha, Wickham, Dampier, Cape Lambert and Port Hedland.

The Goldfields Gas Pipeline

The official opening of the Goldfields gas pipeline took place in Kalgoorlie on Friday the 4th of October 1996 when Richard Court, Premier of Western Australia, turned the valve to release gas piped from the North West Gas Shelf. (The North West Shelf Gas Project is the largest resource development project so far undertaken in Australia, involving a total capital outlay of $12 billion). The initial flow of gas began at the first of two compressor stations on the 1380km line at Mardie station, south of Karratha on 25 September and took ten days to travel to the Goldfields.

Background

In 1994, a *State Agreement Act* was finalised with the Goldfields Gas Transmission Joint Venture (GGTJV) to build, own and operate a pipeline to bring natural gas from the North West Shelf to the Eastern Pilbara and Northern and Eastern Goldfields areas. GGTJV is a private consortium of Wesminco Oil, part of Western Mining Corporation, Normandy Poseidon and BHP Minerals. The *State Agreement Act* not only recognised priority access rights to initial pipeline capacity to the GGTJV or their associates, but provided for capacity to be available to third parties on a non-discriminatory basis at fair and reasonable tariffs. The first stage of the project was the piping of gas 700km from the Harriet oil field to the new BHP 105MW power station at Newman. The line carrying the gas was officially opened on 16 July 1996.

Construction of the $450 million pipeline, which has an anticipated life expectancy of 42 years, commenced in June 1995 and employed 700 tradespeople split into two 350 person camps. The pipeline which consists of 78,000 eighteen metre pipe lengths, was laid at an average rate of 4km per day. Welders did 57 joints per kilometre at two minutes a weld and other crews x-rayed, gritblasted, coated and wrapped the joints and cleaned out the pipe. Machines then layed the joined pipe into the trenches. The camps consisted of administration offices, workshops, messes (including a large bakery) and accommodation and were relocated every 28 days.

The crews had to endure the world's most inhospitable terrain, gale force winds and rain from four cyclones which developed off the Pilbara coast and further inland, extremes of temperature ranging from minus one degree Celsius to soaring temperatures of over 60°C. A 12-person crew working in these high temperatures, would consume up to 280 litres of water a day. Welders, kitted out in protective gear, and pipe coaters using blowtorches suffered heat

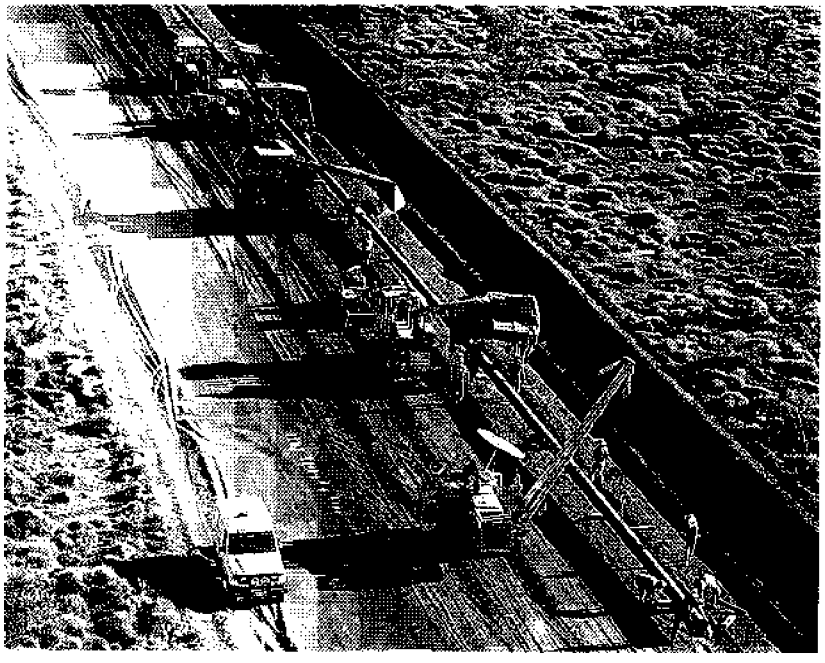
stroke and exhaustion. Although the normal working day was 11 hours long, to accommodate the harsh conditions and ensure the good health of the crews, shifts worked on an hour on/hour off rotational basis.

Project Benefits

The gas pipeline is a reliable energy source eliminating problems associated with supplying diesel fuel by road to remote mines in adverse weather conditions. Future downstream processing projects are now more viable due to the availability and cost-efficient service provided by the pipeline system. The project has already identified significant private sector commitments to power generation facilities.

Benefits from the project include:

- New and existing mineral processing ventures will benefit from the availability of natural gas as a process fuel;
- Creation of new markets for gas producers which should encourage further investment in proving up reserves and production facilities;
- Potential to increase the profitability of existing operations through lower energy costs;
- Improve the viability of projects previously considered to be uneconomic;
- Provide a substitute for imported fuel oil.



Goldfields Pipeline Gas Transmission

Courtesy: Goldfields Gas Transmission

Water Resources

Source: Water Corporation

The Water Corporation

The Water Corporation was established as a body corporate under the provisions of the Water Corporation Act 1995 and is the principal water utility in Western Australia. The Water Corporation commenced operations on 1 January 1996, following a restructure of the water industry in Western Australia.

The Corporation provides drinking water to a state-wide population of more than 1.7 million people. Water, drawn from surface and groundwater sources, is treated and conveyed via a network of 27,200km of water mains, to the 603,000 services connected to the supply network.

In the Perth metropolitan area, drinking water is supplied from surface water (dam) storage and groundwater sources. In the six month period to June 1996, due to the low dam storage (25% of capacity), greater use has been made of the groundwater sources which accounted for 44% of water production. However, better rains during the winter resulted in dam levels being higher than the last several years and currently the metropolitan water supply draws approximately one third of its requirements from groundwater reserves. A major event in the Water Corporation calendar occurred about midnight on 5 September 1996, when Mundaring Weir overflowed for the first time since 1974.

Water from Mundaring Weir is supplied to the Goldfields through a 550km pipeline which serves a number of communities from Mundaring to Kalgoorlie. Another major dam supply to country areas, Harding Dam, supplies farm land services and rural communities in the south and south west of the State through the Great Southern Towns Water Scheme. The $63.3m North Dandalup Dam began supplying water to the metropolitan system on 29 April 1996.

Drinking water for communities in the remainder of the State is supplied by either local surface storage and/or groundwater or in certain communities, exclusively from groundwater supplies.

Metropolitan metered water consumption averages approximately 243 kilolitres per service per annum. Country areas average approximately 352 kilolitres per service per annum.

12.3 – WATER SUPPLY — METROPOLITAN AREA, 1995–96

Source Of Supply	Area of Catchment (Sq Km)	Full Supply Level Storage (Ml)	Storage at 30 June (Ml)	Maximum Storage at 30 June %	1995 96 Output (Ml)
Dams—					
South Dandalup	311	205 344	29 601	14.4	16 036
North Dandalup	153	74 849	24 505	32.7	7 198
Serpentine & Serpentine Pipehead	692	196 347	47714	24.3	44 976
Canning	789	90 353	28 817	31.9	27 606
Wungong	134	59 795	21 099	35.3	11 455
Churchman	16	2 241	1 118	49.9	2 631
Victoria	37	9 463	2 338	24.7	3 885
Mundaring Weir	1 470	63 596	20 364	32.0	1 837
Total	**3 602**	**701 988**	**175 556**	**25.0**	**115 624**
Groundwater—					
Artesian Bores			–	–	15 777
Mirrabooka			–	–	21 499
Gwelup					15 192
Wanneroo		–		–	38 712
Jandakot			–	–	9 088
Clarkson		–			36
Yanchep/Two Rocks		–	–	–	785
Total		–	–	–	**101 089**

Abbreviations: Ml - Megalitres (1,000,000 litres); Sq km - Square kilometres.
Source: Water Corporation

12.4 – WATER SUPPLY SERVICES — METROPOLITAN AND COUNTRY, 1995–96

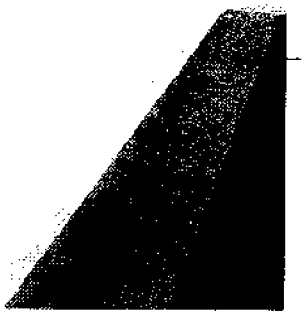
Region	Properties Served No.	Services Connected No.	Length of Mains (Km)	Services per km of Mains No.	Water Supplied (a) (Ml)	Metered Water Consumption (b) (Ml)
Perth South	254 483	214 353	5 391	40	–	–
Perth North	289 817	235 794	5 612	42		
Total Metropolitan	**544 300**	**450 147**	**11 003**	–	**123 070**	**109 532**
Goldfields & Agricultural	40317	38049	8322	5	14862	14392
Great Southern	29 800	25 507	3 148	8	5 776	5 548
Mid-West	33 725	26 109	1 879	14	11 586	10 176
North-West	23 077	19 491	1 150	17	11 953	13 339
South-West	56 700	44 483	1 704	26	12 721	10 620
Total Country	**183 619**	**153 639**	**16 203**	–	**56 898**	**54 074**

(a) Water supplied is the quantity recorded by master meter from 1st January 1996 to 30th June 1996.
(b) Metered water consumption is the total of consumers meter readings for a period which may differ to the above.
Abbreviations: km - kilometres, Ml - Megalitres (1,000,000 litres)
Source: Water Corporation

Mundaring Overflow

Courtesy: Peter Furzer





Irrigation

The Corporation currently provides irrigation services to 1,668 properties in four irrigation schemes in the State. These schemes are established at Kununurra in the north, Carnarvon in the Gascoyne, and two schemes in the South West.

On 16 May 1996, the Board of the Corporation supported the transfer of management of irrigation distribution services to farmer-based co-operatives. The Corporation retains ownership and management of irrigation dams.

South West Irrigation

The South West Irrigation Scheme is now managed by two co-operatives. The South West Irrigation Management Co-operative Ltd is responsible for managing the scheme, employment of staff, accounts and customer liaison. The South West Irrigation Asset Co-operative Ltd owns the distribution system assets, ensures their refurbishment or replacement and controls the disbursement of long term sinking funds paid by irrigators.

Ord Irrigation

The Ord Irrigation Cooperative was formed in late 1995 and is now responsible for the operation and maintenance of the existing Ord irrigation system. Stage one of this scheme is now complete with more than 100 farmers producing crops worth $60 million a year. The hydro-electric scheme, being stage 3 of the project, commenced operations in April 1996. The State Government is now registering expressions of interest for the second stage of the 64,000 ha irrigation river keep scheme. This second stage will see the release of 50,000 ha for broadacre cropping (eg. sugar cane and cotton) and 14,000 ha for horticulture.

Preston Valley Irrigation

On 24 April 1996, the Preston Valley Irrigation Committee received confirmation of the Water Corporation's commitment to work to an acceptable arrangement for the future management and expansion of the Preston Valley irrigation system. The committee has appointed consultants to advise and assist with preparation of a business plan.

Carnarvon Irrigation

Irrigation water is provided from a bore water irrigation scheme, which is owned and operated by the Water Corporation, and from private bores owned by some of the growers. The irrigation scheme is available to all growers and also is the source of water for the Carnarvon townsite. Management of Carnarvon irrigation has been undertaken with the assistance of the Carnarvon Irrigation District Advisory Committee (CIDAC).

In January 1996, the Water and Riverways Commission (WRC) was established with responsibility for setting groundwater allocations through the State. As a consequence, groundwater licences are to be issued to the Water Corporation for its borefield and to growers for their private bores.

The CIDAC will continue to fulfil an advisory role on irrigation. However, for groundwater management, the WRC has established the Carnarvon Groundwater Area Advisory Committee to advise on allocations and related matters.

Work-in-Progress

Wanneroo-Yokine Pipeline

The Wanneroo-Yokine Pipeline, the bigget water pipeline established in Perth in the past 15 years, is under construction. The $20 million, 18km system will transfer water from Wanneroo Reservoir to Yokine Reservoir. A 30% reduction of rainwater runoff over the last 30 years and escalating demand have necessitated the earlier start to the project.

Groundwater schemes in the Wanneroo area will be the principal new source of water in the next few years. Major distribution pipelines capable of transferring water on demand is an integral part of these schemes.

Woodman Point Upgrade

The capacity of the Woodman Point wastewater treatment plant is to be doubled in a six-year project that will cost more than $100m.

The project, to construct two 38-metre high digesters, is well advanced. These digesters are the heart of a treatment plant which will generate its own electricity and provide surplus energy for sale to Western Power. The egg-shaped sewerage processors, which were the first to be built in the southern hemisphere, have a capacity of 8000 cubic metres of wastewater.

This facility is part of a $27m project comprising a raw sludge pumping station, mechanical dewatering using centrifuges, an energy recovery system and associated infrastructure. Commissioning of the facility will take place in mid 1997.

Kalgoorlie Pipeline

The Corporation is assessing work to date and future options for the refurbishment of the Kalgoorlie water pipeline with the aim of extending the life of the pipeline and reducing losses from the system.

Projects Completed

Lower South Dandalup Pumpback

The $15.5m Lower South Dandalup Pumpback Scheme, which was commissioned in late November 1996, will contribute an average of 6.2 gigalitres a year to the metropolitan system by pumping winter stream flows back to the South Dandalup Dam.

Pinjar Groundwater Scheme

Construction of the $18m second stage of the Pinjar groundwater scheme, which was completed in October 1996, included eight new wells linking into the metropolitan supply system and an upgrade of the Wanneroo treatment plant. The Pinjar borefield is being extended to satisfy increasing local demand in the northern metropolitan region.

Victoria Dam Redevelopment

The redevelopment of Victoria Dam and upgrading of the pump station were completed during the year. Commissioning of a new chemical dosing plant at the Victoria Dam site took place in December 1996.

Yarragadee Artesian Bores

Construction of a new high capacity artesian bore into the Yarragadee aquifer, which was commissioned in May 1996, is part of a replacement program for several bores constructed in the early 1890s. A similar bore, built at Melville Reservoir to replace a previously abandoned structure, was commissioned in mid December 1996.

Research and Development

The Corporation has continued its involvement in research projects aimed at developing new technology to improve its products and services.

Many Western Australian coastal communities now have better quality water as a result of recent research work by the Water Corporation. Most coastal groundwater is 'hard water', due to the presence of calcium and magnesium in the water, and scaling occurs when this water is heated. Although the levels of hardness were within the 1987 National Health and Medical Research Council Guidelines, the frequency of customer concerns prompted the Corporation to act.

Augusta in the far south west of the state was the first country town in Australia to benefit from the dosing of its water supply with Calgon (sodium hexametaphosphate). Calgon does not reduce hardness of water but keeps calcium in solution, preventing it depositing on appliances and elements. Over the last two years, Calgon has been used to treat the water supplies at Esperance and Millstream. Millstream supplies water to Karratha, Dampier, Wickham and other centres. The addition of Calgon to water supplies does not affect the taste of the water and is an effective and inexpensive solution to a problem familiar to many coastal communities.

References

Statistics Digest, Department of Minerals and Energy

Housing And Construction

Chapter 13

HOUSING AND CONSTRUCTION

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Chapter 13

HOUSING AND CONSTRUCTION

Housing and Construction in 1995–96

by Gavan J Forster, B Comm (Hons), MBA (Econs), Dip Ed, Director, Economics and Housing, Master Builders Association of WA.

The Western Australian building and construction industry can be broken down into three distinct sectors:

- Housing/residential building;
- Commercial/non-residential building; and
- Engineering construction.

Each sector often operates at a different stage of the business cycle and this was the case in Western Australia in 1995–96.

Residential Building

This sector covers construction of single detached housing and, multiple unit development, including villas, town houses, duplexes and flats.

Housing

Housing activity in 1995–96 experienced its worst year since 1990–91. Low levels of confidence and a slowdown in established house sales were major contributing factors, but in addition to normal cyclical factors a number of important structural changes are adversely affecting the housing market. Lower migration levels, readjustment of investor attitudes towards housing during a prolonged period of lower inflation and a reduction of State government housing expenditure away from direct construction of rental properties are all leading to lower levels of dwelling starts. Activity in the major regional centres also suffered a significant decline.

Demand for building trades has remained at subdued levels with major trades such as carpenters and bricklayers being well oversupplied. Little upward movement is expected in house prices while activity remains at its subdued levels and building material manufacturers experience significant excess capacity.

1995 PROPERTY MARKET REVIEW

Contributed by Lino Iacomella, Public Affairs Director, Real Estate Institute of Western Australia (REIWA).

The 1995 property market in Western Australia was two paced. The residential sector reached the low point in its cycle. The non-residential sector, however, continued a steady recovery.

The residential property market was affected by an oversupply of housing and low homebuyer confidence, largely brought about by two interest rate rises in the preceding year. While interest rates remained unchanged throughout 1995, the memory of devastatingly large interest rate increases in the late 1980's haunted homebuyers.

Eventually the real factor behind the downturn in the residential market, an oversupply of housing following the building boom, took hold. There were 36,500 sales of established homes in Western Australia in 1995, which was 28% less than the previous year.

The sales downturn kept a lid on price movements. The median price of established houses sold in Perth rose by only 3.3% to $128,700 during the year, which is much less than the increases in previous years. However, a feature of the 1995 property year was that property prices generally did not fall given the significant downturn in sales. This is largely due to an absence of a price boom in the preceding building boom.

A significant development in the residential property market during 1995 was the realisation that the ageing baby boomer generation will have important implications for housing. This group of the population is growing significantly larger in number than the traditionally important first homebuyer/young family section of the population. In 1995, the housing and real estate industries focused on the varying housing demands that will evolve in the rest of the 1990s and beyond.

No major growth areas for housing opened up in the metropolitan area during the year. However, there was consolidation of two relatively new growth zones, the Ellenbrook housing estate (north east corridor of the city) and the East Perth inner city redevelopment.

Inner city housing developments continued to gather momentum with the announcement to develop a major apartment and commercial complex on the site of the old Emu Brewery (Riverside Drive) and the commencement of several large housing projects in Northbridge and Fremantle. There was also continuing conjecture about plans to redevelop unused railway land in Subiaco into housing.

On the commercial side, the development of several major retail projects reached a peak and the growth area focused on the development of industrial properties to service the expansion in the mining sector.

Another growth area in the commercial property market was the hotel and leisure sector. Several new hotels were earmarked for construction in Perth during the year, including the redevelopment of the old Australian Taxation Office in Adelaide Terrace. There were also several plans announced to develop a series of major mega cinema and entertainment complexes. Most of these developments will be situated in major suburban shopping centres.

There were also promising signs in the rural property sector following improved seasons and better commodity prices, particularly for wheat.

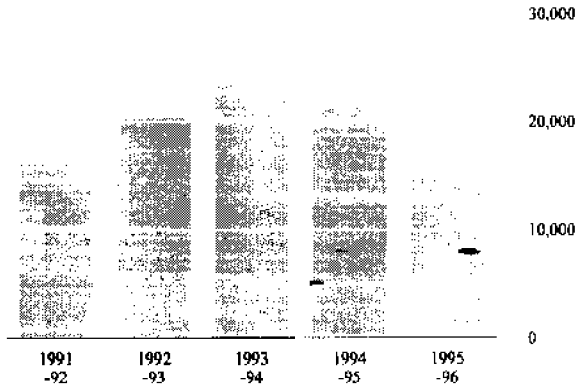
There were major differences in the regional property markets around the State during 1995. For instance the mining centres of the Goldfields, centred around Kalgoorlie, and the Pilbara (Karratha and Port Hedland) enjoyed strong demand for housing following very strong growth in mining investment.

The South West property market centred around the tourist centres of Busselton and Dunsborough. Margaret River also enjoyed strong demand for housing which boosted the local property market.

The Mid West city of Geraldton, however, was affected by the property downturn which afflicted the metropolitan area.

Interest rates remained unchanged at 10.4% throughout 1995–96. In Western Australia, dwelling commencements reached 14,737 in 1995–96, a decrease of 30.4% on 1994–95. The Perth metropolitan area showed a similar trend with commencements falling by 34.7% over the same time period. Wanneroo, Rockingham and Swan were the local government areas with the largest numbers of commencements in 1995–96.

DIAGRAM 13.1
BUILDING COMMENCEMENTS



Source: ABS Catalogue No. 8741.5

Unit Construction

Unit construction still remains well oversupplied. The period of excessive building in the 1993–95 period resulted in an oversupply which is only slowly being absorbed in the current market.

DIAGRAM 13.2
UNIT CONSTRUCTION



Source: ABS Catalogue No. 8741.5

Renovation activity remained at satisfactory levels, indicating a preference for homebuyers to remain in their current residence, preferring upgrading rather than relocation.

Activity in 'other residential buildings' has continued to fall from the high levels previously recorded. Commencements of 'other residential buildings' fell in both the private and public sectors in 1995–96 for the third consecutive financial year. Western Australia recorded 3,687 dwelling commencements in 1995–96 in this category, compared with 5,662 in 1994–95, a decrease of 34.9%.

Alterations and Additions

Activity in this sector continues to improve. In 1995–96, $163 million worth of major renovations over $10,000 have been recorded. This rise, from $156 million in 1994–95, could be attributed to the rise in interest rates making renovation more attractive than purchasing or building a new home.

Non-Residential Building

This sector includes activity in the construction of buildings such as offices, hotels, educational premises and shopping centres.

The non-residential building sector is showing signs of improvement but an extensive recovery is still some way off. While there has been an upturn in tourism related developments in the Central Business District (CBD) and Northbridge areas, the office sector remains oversupplied with rentals still insufficient to justify new CBD development. One area of growth has been suburban shopping centre refurbishment and the appearance of a number of entertainment complexes, encompassing cafes and other recreational activities.

The benefits of the 'resources boom' have been slow to materialise in this sector and are expected to appear only in the medium term.

The value of non-residential building in 1995–96 continued to rise on previous years reaching $803 million. Both the private and public sectors recorded rises in 1995–96.

Engineering Construction

Engineering construction continues to remain healthy, spurred on by a healthy mining sector and strong infrastructure budgets. Current or prospective projects include the Collie Power Station, Subi Centro project and the City Northern By-Pass Project.

13.1 – ENGINEERING CONSTRUCTION, 1995–96

Type of work done	*Amount* $m
Roads, highways and subdivisions	564.1
Bridges	24.2
Railways	69.3
Harbours	17.4
Water storage and supply	58.3
Sewerage and drainage	60.8
Electricity generation, transmission and distribution	220.7
Pipelines	277.0
Recreation	40.7
Telecommunications	428.4
Heavy industry—	
Oil, gas, coal and other minerals	831.3
Other heavy industry	83.0
Other	10.6
Total	**2 685.7**

Reference: Catalogue No. 8762.0

References

ABS Publications

Building Approvals, Western Australia (8731.5)

Dwelling Unit Commencements, Western Australia (8741.5)

Building Activity, Western Australia (8752.5)

Engineering Construction Survey, Australia (8762.0)

Commerce

Chapter 14

COMMERCE

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Chapter 14

COMMERCE

Specific areas of the commerce sector, such as mining, manufacturing and retail and wholesale trade are readily identifiable; however commerce is a broad term which could be used to describe most of the sectors comprising the economy of any society.

Stock Exchange

The Australian Stock Exchange (Perth) opened for trading in October 1888. On 22 July 1889, a rebel group formed a second organisation, the Stock Exchange of Perth. By 1890 the two rivals had merged operations and the Stock Exchange of Perth was established with 25 listed companies and 41 members each paying an entry fee of £50. The first Chairman of the new exchange was Sir Cornthwaite Rason. The Stock Exchange of Perth became part of the Australian Stock Exchange Ltd., in 1987.

The Stock Exchange of Perth established Australia's first Second Board Market on 29 June 1984. The Second Board provides a new method of capital raising for relatively small companies which do not qualify for the main trading board. A second board company requires only a spread of 100 shareholders and $100,000 issued capital. Listing fees are substantially lower than those for the main board.

SHARE OWNERSHIP

Courtesy of Australian Stock Exchange Ltd.

The profile of share ownership in Australia showed some structural shifts over the 12 months to March 1996. Major changes included:

- The level of shareholdings in companies by other companies increased from 8.5% in March 1995 to 11.0% in March 1996;
- The level of share ownership by life and superannuation funds increased from 24.1% in March 1995 to 26.3% in March 1996;
- Foreign investors increased their shareholdings from 31.8% in March 1995 to 32.5% in March 1996, and constitute the largest single share-owning sector;
- The level of individual share ownership continued to decline, from 22.5% in March 1995 to 18.4% in March 1996.

There was a significant increase in the level of share ownership in companies by other companies. The number of takeovers in 1995 was more than twice that of the year before; there were 64 formal and on-market offers compared with only 36 the previous year and 57 in 1993, when sharemarket prices rose by 40%.

The amount of money invested in Australian shares by life and superannuation funds has increased over the last few years as the unemployment rate has decreased. Their proportion of market share ownership, however, has remained relatively stable, ranging from 23% to 28%.

The continuing increase in share ownership by foreign investors reflects a combination of factors, including the continuing competitiveness of Australian share prices compared with the United States, the relatively cheap Australian dollar in 1995 (71–75 cents US), underlying inflation being held at around 3% and no change in official interest rates.

Share ownership by the household sector peaked in 1993, probably because of the large number of high-profile listings and privatisations that were marketed strongly to individual investors.

The $4 billion privatisation of the Commonwealth Bank, together with the possibilities of the $8 billion privatisation of one-third of Telstra and floats of Optus, National Mutual and Colonial Mutual in late 1996 and 1997, means that the household sector's share of the market is likely to reverse its downward trend.

Department of Commerce and Trade

The Department of Commerce and Trade was established with Executive Council approval on 16 February 1993 (under powers contained in Section 21 of the *Public Service Act 1978)* to maximise the contribution of commercial and trading activities to the economic development of Western Australia. In 1995, the Western Australian Government, through the Department of Commerce and Trade, joined a national drive called AusIndustry to streamline government assistance to industries.

The main strategies employed by the Department to enhance increased economic development are:

- Increased Investment,
- Enhanced Trade, and
- Improved Regional Development.

Increased Investment

A major factor of economic growth is private capital investment in value added activities. Apart from generating wealth and employment, investment creates the opportunity to improve and increase skills and technology. Overseas investment encourages the exchange of ideas and reinforces Western Australia's position in international networking markets.

Enhanced Trade

The economic growth of Western Australia relies heavily on primary production and the export of these resources. Because markets within the State are relatively small, many businesses are dependent on exports. The Department offers its expertise to local enterprises to assist with the difficult issues and policies associated with interstate and overseas trade.

Improved Regional Development

To ensure that non-metropolitan based enterprises are not disadvantaged by their physical location, the Department of Commerce and Trade has accepted responsibility for regional development. Strategies are in place to enable these businesses to compete equally with more centrally located operations and to provide a level of service consistent with the requirements of regional populations.

Chamber of Commerce and Industry

The Chamber of Commerce and Industry (CCI) was formed in 1992 when the Confederation of Western Australian Industry and the former Western Australian Chamber of Commerce (established in 1890) merged. The Chamber, operating independently of government, is funded by member subscriptions and is a non-profit organisation currently representing 10,000 member companies throughout the State. Membership to CCI is open to all business enterprises regardless of size and type of industry involvement. CCI WA is the second largest Chamber in Australia and currently employs a staff of 160, who provide a wide range of services to members.

Chambers of Commerce located in suburban areas of the State have combined to form regional centres and a district office involved with local issues. There are more than 30 other chambers throughout the State affiliated with CCI and forming part of the overall Western Australian network. The CCI operates with the Australian Trade Commission and the Western Australian Department of Commerce and Trade to promote international trade. An extensive international trade library is available to the general public. The activities of all 31 bi-lateral and ethnic Chambers of Commerce, Business Councils and Business Associations in the State are co-ordinated by CCI.

Services Provided

The Chamber offers its members advice and support through a variety of basic services and specialised programs:

- Employee Relations,
- Occupational Health and Safety,
- Training Centre,
- Industry Support Service,
- International Trade,
- Insurance Services,
- Information Services,
- Networking, and
- Other services.

The CCI also operates a school program which is designed to build links between industry and education.

Manufacturing

Historically, the manufacturing industry in Western Australia was based on the processing of local raw materials to produce meat, milk, seafood, wood, clay and cement products for local consumption and export.

These industries are still important, but the development in recent decades of the State's mineral resources and the discovery of abundant natural gas resources has seen the emphasis change to the value-added processing of minerals such as alumina and nickel for export. More recent mineral-related developments include the expansion of gold and alumina refining capacities, the establishment of a silicon smelter and several projects relating to the downstream processing of mineral sands and iron ore.

Concurrent with these developments and the growth in the mining industry has been the growth in associated manufacturing industries involved in the construction and servicing of new resource projects, especially in the fabrication and the machinery and equipment sectors.

14.1 – MANUFACTURING INDUSTRY: SUMMARY OF OPERATIONS

Description	Establishments at 30 June	Employment at end of June (a)	Wages and salaries (b)	Turnover
	No.	'000	$m	$m
1989–90	3 808	71.2	1 843.4	13 429.4
1990–91	3 761	65.7	1 795.2	13 231.6
1991–92	3 896	63.8	1 811.6	12 850.4
1992–93	3 896	65.0	1 872.5	13 510.9
1993–94	3 936	65.4	1 938.1	13 777.6

(a) Includes working proprietors.
(b) Excludes the drawings of working proprietors.
Reference: Catalogue No. 8221.5

Following a slump in the early 1990s the manufacturing industry in Western Australia has resumed slow, steady growth . The number of establishments has risen to 3,936 in 1993–94, an increase of 4.7% from the low of 3,761 establishments in 1990–91 and 1.0% from 1992–93.

Turnover for the year 1993–94 by manufacturing establishments operating in Western Australia was $13,778m. This represents a 2.0% increase, in current price terms, from the $13,511m turnover recorded for the year 1992–93. In constant price terms (1989–90 prices), manufacturing gross product at factor cost increased by 3.7% in 1993–94 from 1992–93.

Manufacturing employment at the end of June 1994 was 65,400, a marginal 0.5% higher than 12 months earlier. This increase followed an increase of 1.9% in the 12 months to the end of June 1993.

14.2 – MANUFACTURING INDUSTRY, SUMMARY OF OPERATIONS 1993–94

Description	Establishments at 30 June	Employment at end of June (a)	Wages and salaries (b)	Turnover
	No.	'000	$m	$m
Food, beverage and tobacco	351	10.9	312.5	2 673.8
Textile, clothing, footwear and leather	228	3.4	78.2	296.7
Wood and paper products	319	4.5	126.5	691.6
Printing, publishing and recorded media	403	6.0	169.4	645.0
Petroleum, coal, chemical and associated products	241	5.3	195.2	2 738.7
Non-metallic mineral products	212	4.8	153.7	983.7
Metal products	679	14.0	487.8	3 664.6
Machinery and equipment	879	10.8	298.2	1 551.9
Other manufacturing	624	5.6	116.5	531.6
Total	**3 936**	**65.4**	**1 938.1**	**13 777.6**

(a) Includes working proprietors.
(b) Excludes the drawings of working proprietors.
Reference: Catalogue No. 8221.5

The 1993–94 census of manufacturing recorded 65,400 persons employed at the end of June 1994. Metal product manufacturing (21.4%), Food, beverage and tobacco manufacturing (16.7%) and Machinery and equipment manufacturing (16.5%) continued to be the major contributors to employment at the end of June 1994. Textile, clothing, footwear and leather manufacturing (5.2%) and Wood and paper product manufacturing (6.9%) remain the smallest contributors.

Metal product manufacturing remains the industry subdivision with the largest contribution to turnover in manufacturing industry. Other major contributors as a percentage of total turnover were:

- Metal product manufacturing (26.6%),
- Petroleum, coal chemical and associated manufacturing (19.9%),
- Food, beverage and tobacco manufacturing (19.4%), and
- Machinery and equipment manufacturing (11.3%).

The percentage contribution by Western Australia to total Australian manufacturing turnover in 1993–94 was 7.5%. This represents a decrease of 0.3 percentage points on the contribution reported in 1992–93. The Western Australian industry subdivisions which made a significant contribution to total Australian manufacturing turnover in 1993–94 were Non-metallic mineral product manufacturing (11.4%) and Metal product manufacturing (10.9%).

REGIONAL MANUFACTURING DEVELOPMENTS

Contributed by Western Australian Planning Commission

Pilbara and Kimberley Regions
A second resource boom is underway in the Pilbara. Following BHP's recently announced $1.5 billion direct reduced iron (DRI) plant at Port Hedland, Mineralogy Pty Ltd has approval for a $1.8 billion DRI plant at Dampier, and has foreshadowed a $2.7 billion electric arc steel plant using its DRI as feedstock. As the oil industry continues to expand there will be potential for the establishment of a major petrochemical industry in the north-west.

Gascoyne and Mid-West Regions
The Dampier-Goldfields natural gas pipeline will present opportunities for new developments and downstream processing along its route. There is potential for titanium dioxide and rare earths plant in the Eneabba region and a DRI and possibly a steel plant at Geraldton. Plans for the $1.1 billion steel mill are proceeding and a vanadium pentoxide plant could be developed at Windamurra (near Mt Magnet). There is also potential for a straw pulp-cardboard mill in the grain growing region.

Wheatbelt and Goldfields-Esperance Regions
The manufacturing sector of this region is focused primarily on Kalgoorlie-Boulder and Esperance. Production mainly services and supplies the mining industries, particularly machine tool and drilling equipment. Lower priced electricity, resulting from the Dampier-Kalgoorlie natural gas pipeline, could result in significant expansion of manufacturing industries in this area, particularly in the chemical industries.

Great Southern Region
The region's manufacturing industry is predominantly based in Albany and includes vegetable processing, fertiliser works and sheep skin products. A large abattoir is located at Katanning, approximately 170 kms north of Albany.

Peel and South West Regions
In recent years, manufacturing has become the means of broadening the South West's economic base and at present there are over 200 manufacturing establishments contributing nearly $500 million to the region's economy. The two most important manufacturing industries are titanium dioxide and timber products which account for over 70% of the manufacturing sector's income. Much of the downstream processing is associated with the timber, dairy and viticulture industries.

Bunbury is becoming an important fabricator and supplier of components for the North West Shelf project. Western Australia's first offshore concrete oil storage facility was built at Bunbury's inner harbour at a cost of $100 million and was successfully positioned in the Carnarvon Basin in October 1996.

The Peel Region has a small but flourishing manufacturing sector focusing on timber products, food processing, fabrication and transport equipment. Population growth in the Mandurah and Pinjarra regions and in the southern part of the Perth region will create a demand for a greatly expanded manufacturing sector.

Retail Trade

Retail trade is described as the resale of new or used goods to final consumers for personal or household consumption. Detailed information about the retail sector has been collected using Censuses of Retail Establishments, the first of which was taken for the year 1947–48.

Eight censuses have been taken since then as part of the Australian Bureau of Statistics' (ABS) program of rotating economic censuses. Results from each census are published for each State and Territory and for Australia. Surveys of retail trade, which were introduced from 1956, have enabled the production of estimates of retail trade on a less detailed but more frequent basis.

Census of Retail Establishments

The most recent census was taken for the year ended 30 June 1992 and included all establishments classified to the Retail Trade subdivision of the Australian Standard Industrial Classification (ASIC), excluding bread and milk vendors, shoe repairers and electrical appliance repairers not elsewhere classified.

Survey of Retail Establishments

Since 1956, intercensal estimates of the value of retail sales have been produced by means of sample surveys. Prior to April 1982 surveys were conducted quarterly but are now conducted on a monthly basis. The surveys are reviewed periodically, generally to account for changes reflected in the results of each retail census.

14.3 – RETAIL TURNOVER ANNUAL ESTIMATES AT CURRENT PRICES(a): ORIGINAL

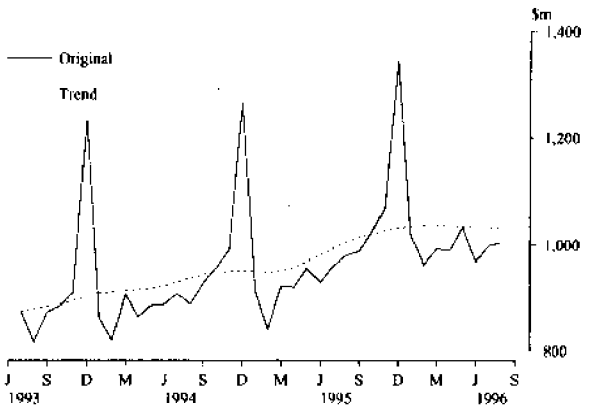
Industry group	*1993–94r*	*1994–95r*	*1995–96*
	$m	$m	$m
Food retailing	4 558.9	4 868.7	5 265.0
Department stores	1 089.9	1 120.1	1 164.6
Clothing and soft good retailing	682.7	742.2	762.0
Household good retailing	1 341.8	1 286.3	1 377.1
Recreational good retailing	540.8	590.0	683.0
Other retailing (a)	908.7	918.8	1 036.4
Hospitality and services	1 686.1	1 883.4	2 036.3
Total	**10 808.9**	**11 409.5**	**12 324.4**

(a) Excludes motor vehicle dealers, petrol and tyre retailers
Reference: Catalogue No. 8501.0

Estimates of turnover (in original current price terms), by industry group for 1993–94 to 1995–96 are provided in Table 14.3.

The surveys conducted since June 1988 are based on the results of the 1985–86 Retail Census and produce estimates of 'turnover' by retail establishments rather than the narrower estimates of 'retail sales'. Retail estimates are published monthly in *Retail Trade, Australia* (Catalogue No. 8501.0).

DIAGRAM 14.1 – RETAIL TURNOVER



Source: Cat No. 8501.0.

Diagram 14.1, covering the period July 1993 to August 1996, illustrates the seasonal nature of retail turnover, the long term upward trend in retail turnover and the monthly variations that can occur. Data is presented as trend estimates in current price terms.

Transport

Road Transport

The role of Main Roads Department in the administration of Western Australia's road transport system is changing from being a direct builder of roads to a provider of roads and road services. The result will be Main Roads Department adopting more of a management role to oversee the work of contractors and suppliers and participating less in direct construction of roads and associated functions. The $335 million City Northern Bypass is an example of the new 'design-and-construct' contract system where all design and construction is undertaken by the private sector with Main Roads Department managing the project.

In 1995–96, Main Roads Department received funding from four primary sources:

- $70 million Commonwealth funding,
- $311 million State fuel levy and vehicle licence fees,
- $50 million State Treasury allocations, and
- financing partnerships between State, local government and private enterprise.

Western Australian roads are grouped into various categories each of which is managed by a different sector or level of government.

14.4 – LENGTH OF ROADS, 30 JUNE 1995

	Sealed	*Unsealed*	*Total*	*Sealed*
	km	km	km	%
Roads under Federal Responsibility	4 648		4 648	100
Roads under State Control—				
Highways (including Freeways)	5 847	283	6 131	95.4
Main roads	5 391	1 156	6 547	82.3
Total State Government Maintained Roads	*15 886*	*1 440*	*17 326*	*91.7*
Local roads	28 936	90 381	119 318	24.3
Local roads not regularly maintained	91	4 499	4 591	2
Total Local Government Controlled Roads	*29 028*	*94 881*	*123 908*	*23.4*

Source: Main Roads Western Australia

Motor Vehicles

The Department of Transport continues to manage the registration of all motor vehicles, motor driving licences, marine licences and boat registrations. Public road transport and taxi services are also administered by this Department.

14.5 – MOTOR VEHICLE REGISTRATIONS

	1994(a)	*1995(b)*	*1996(c)*
New Motor Vehicle Registrations—			
Motor cars and station wagons	48 589	51 947	51 134
Utilities and panel vans	10 350	10 782	10 838
Trucks and buses	2 136	2 170	2 315
Motor cycles	2 103	2 344	2 440
Total	*63 178*	*67 243*	*66 727*
Vehicles On Register—			
Motor cars and station wagons	827 837	855 129	880 856
Utilities and panel vans	156 889	161 012	164 728
Trucks and buses	120 577	125 231	128 612
Motor cycles	37 078	37 440	37 590
Total	*1 142 381*	*1 178 812*	*1 211 786*

(a) Vehicles on Register is at 30 June.
(b) Vehicles on Register is at 31 May.
(c) Vehicles on Register is at 2 November.

Source: Australian Bureau of Statistics Unpublished Data.

Bus Services

The Department of Transport is responsible for the Transperth public transport network which includes MetroBus. The restructuring of the public transport system to facilitate the adoption of the Government's competition policy has changed the role of the Department of Transport to mainly policy making, while MetroBus is now the primary service provider. During 1996, the MetroBus fleet of 853 buses was split and MetroBus retained control of 444 buses. The remainder, representing 44% of the total fleet and 42% of routes, are now operated by four private companies.

A new Central Area Transit (CAT) passenger transport system, providing free travel within the city centre, was introduced in August 1996. The 16 Scania air conditioned buses, (each costing $400,000) were funded equally by the State and Federal Governments and the City of Perth. The Commonwealth funding was provided via the Better Cities Program and operating costs will be shared between the State and the City of Perth.

The buses are equipped with a 'squatting' suspension system which lowers them to kerb level enabling easy access for passengers. This system of entry and egress was designed to benefit the elderly, disabled and mothers with prams and small children. Forty-nine high technology bus stops costing $20,000 each are an integral part of the new service. Each bus is monitored by a satellite tracking system which verbally reports and visually displays to passengers at these stops, the waiting time for the next bus.

Rail Transport

The Western Australian Government Railways Commission achieved a first ever operating profit during the 1995–96 financial year. This result was $11.2 million above budget and represents a $14.3 million improvement on the previous year. Westrail increased its contribution to the Western Australian economy by $10 million, with a total value added of $287 million during 1995–96. An increase of 1.8 million tonnes in freight hauled was recorded for the year from 29.4 million tonnes in 1994–95 to 31.2 million tonnes in 1995–96. However, as part of Westrail's commitment to productivity gains sharing policy, freight charges to clients were reduced by $7 million. Capital expenditure of $59.6 million was invested to enhance Westrail's competitive position in the freight and passenger transport markets. Contracts worth $66 million were signed for the supply of 24 new locomotives which will be delivered to Westrail in 1996–97.

Ore and Minerals Services

The focus of this sector is the marketing and delivery of integrated logistics services for ores and mineral related products. Services encompass rail transport, road linehaul and road distribution management, inventory control management, logistics information systems and logistics consulting. The deregulation of major bulks, which took effect on 1 July 1995, has meant that existing contracts between Westrail and its major customers have had to be re-negotiated. Investments made at Westrail's Kwinana Terminal have lead to cost reductions in the transport of salt, various ores and

minerals and general freight containers. Agreements with several major companies have been signed to transport nickel products, concentrates, coke and sulphuric acid. The transport of sulphuric acid solutions involved the modification of 75 wagons to haul the specially designed acid containers.

The adoption of a common coal service for industries using coal as a fuel base, such as Western Power, will take full advantage of the Kwinana terminal improvements and will increase both locomotive and crew utilisation. Westrail provides active stockpile management for Western Power's Kwinana power station. This aspect of logistics services encompasses road distribution, storage and logistics planning as well as rail haulage.

Haulage of diesel to Kalgoorlie and Leonora increased by 21% in 1995–96 compared with the previous year due to increased mining activity in this area. However, it is anticipated that the goldfields gas pipeline, which became operational in September 1996, will reduce the demand and consumption of this type of fuel.

Agriculture and General Services

Westrail continues to play a major role in the transport of grain from the production regions of the State to the Australian Wheat Board and the Grain Pool. Grain freight rates have been re-structured to recognise long haul growers. This year over 3,200 grain producers, who delivered more than 95% of their crop to a rail bin, were paid a 2.5% rebate on their grain freight rate. The total rebates amounted to $1.9 million.

Continual improvements in road transport technology, and competition between tenders for the cartage of grain from road bins to port, has resulted in a significant reduction in road freight rates. The prospect of third party access to the entire rail network has increased pressure on Westrail freight rates and services.

Passenger Services

Although urban passenger patronage was 2.1% lower in 1995–96 than in 1994–95, customer satisfaction was on target at 92%. Increased focus was given to security issues with the installation of video surveillance equipment at major stations. The program to install electronically controlled pedestrian gates at crossings was completed.

Capital works at a number of suburban stations were completed and the new Claremont Showgrounds Station was opened in September 1995.

An Urban Passenger Customer Service Council was established to provide Westrail with feedback on services and to assist in the development of policy and strategy. The council consists of eight members of the public, representing different types of train travellers including seniors, parents of young children, professionals and the disabled, and three Westrail representatives.

A Disability Service Plan was developed to conduct an audit of all stations and buildings used by passengers and classify them as being either 'basic' or 'easy access'. Modifications to the vestibule area of each station to provide open space for prams, bicycles and wheelchairs was a recommendation of this plan.

Country passenger patronage improved overall by 10% compared with 1994–95. Additional services such as the Avonlink, a twice daily commuter rail service operating six days a week between Northam and Perth offering regular commuters special fares and arrangements, contributed to a 13% rail service increase.

Road coach patronage increased by 7% due to amended schedules and new services such as the Perth and Geraldton/Kalbarri route, which was trialed in April 1996. The quality of coach travel was enhanced by the acquisition of 11 new vehicles, nine 48 seater and two 58 seater coaches. The new coaches offer improved occupant protection with the provision of seat belts and the two 58 seater coaches are equipped with a wheelchair hoist to improve access for passengers with disabilities.

14.6 – WESTRAIL SERVICES

	1993–94	1994–95	1995–96
Kilometres of railway (a)—			
Route kilometres	5 583	5 583	5 369
Track kilometres	6 987	6 970	6 741
Kilometres run ('000)—			
Train	7 561	8 114	8 507
Road bus (b)	3 040	3 208	2 925
Passenger journeys ('000)—			
Rail	246	247	279
Road (b)	215	228	245
Tonnes carried ('000) (c)	27 726	29 317	31 081

(a) Excludes suburban rail, charter and tourist sevices.
(b) In addition to its rail services, Westrail operates a system of road services for passengers and freight.
(c) Paying goods only.
Source: Westrail

Air Transport

Airlines operating within Western Australia service areas ranging from large regional centres to isolated mining communities. Small mining centres require air services to 'fly in/fly out' crews who work on a rotational shift basis. To rationalise aircraft timetables, and reduce costs usually associated with relatively low passenger occupancy rates on these flights, a non-jet service to cater specifically for these more remote areas began operating in April 1995. Airport statistics of passenger movements now reflect a trend showing the influence of more flights but less passengers per flight resulting from the usage of smaller non-jet aircraft.

14.7 – PASSENGER AND AIRCRAFT MOVEMENTS

Airports	Passengers (a)			Aircraft Movements (b)		
	1993	1994	1995p	1993	1994	1995p
Broome	123 082	166 710	210 000	2 643	3 644	6 020
Carnarvon	35 383	33 423	27 600	866	844	1 111
Derby/Curtin	66 361	48 729	25 005	2 172	1 793	2 033
Geraldton	74 723	80 431	60 136	2 856	3 021	2 874
Kalgoorlie	107 563	127 477	172 000	3 357	4 411	4 820
Karratha	176 192	198 753	175 000	3 854	4 398	4 840
Kununurra	112 265	131 115	122 000	2 421	3 074	3 750
Learmonth	27 457	36 353	35 239	723	873	1 147
Newman	76 367	73 474	72 442	1 536	1 478	1 799
Paraburdoo	55 539	59 089	61 870	1 281	1 300	1 361
Perth–						
Domestic (c)	2 210 145	2 531 929	2 795 000	35 084	39 600	44 100
International (d)	1 000 869	1 121 046	1 190 837	7 121	7 362	8 167
Port Hedland–						
Domestic (c)	136 358	149 500	146 000	3 541	3 744	4 350
International (d)	4 455	2 302	1 367	106	66	42
Christmas Island–						
Domestic (c)	3 520	10 427	12 080	89	250	254
International (d)	3 862	20 668	27 479	104	543	560

(a) Total of embarkation and disembarkation. From 1992, also includes passengers in transit.
(b) Total of arrivals and departures.
(c) Interstate and intrastate. From July 1, 1993, includes international service traffic carried by the major Australian airlines over Australian flight stages.
(d) Excludes passengers in transit.
Source: Department of Transport and Regional Development.

Shipping Transport

The resources boom in Western Australia is a major factor in the State's economic growth and ports such at Dampier, Port Hedland and Cape Lambert have become synonymous with the exporting minerals.

Port Hedland

Port Hedland is Australia's largest bulk minerals port. In 1995–96, the Hyundai Giant (259,287 deadweight tonnage and 328.6 metres in length) was recorded as the largest and longest ship ever berthed at the port. Other records set at Port Hedland during the year were:

- Record annual throughput 64,263,006 tonnes (imports and exports),
- Record annual iron ore 60,940,581 tonnes (exports),
- Record annual salt 2,453,636 tonnes (exports), and
- Record monthly throughput 6,413,584 tonnes (imports and exports).

Located further south in the State are the ports of Geraldton, Fremantle, Bunbury, Albany and Esperance. Minerals, manufactured products and primary produce are handled at these facilities.

Geraldton

The port of Geraldton services the mid-west of the State. The principal commodities exported in 1995–96 were wheat (1,498,152 tonnes) and lupins (391,319 tonnes). Mineral sands (752,171 tonnes), talc (181,624 tonnes) and zinc concentrate/ore (143,964 tonnes) contributed to a total throughput of 3,600,432 tonnes.

Fremantle

Fremantle is Western Australia's largest bulk and containerised handling facility and during 1995–96 recorded a throughput increase of 7.3% (33.5 million tonnes) on the 1994–95 record. From 1991–92 to 1995–96 container vessel visits and gross tonnage (GT) have increased from 327 visits and 5.8 million GT to 520 visits and 10.9 million GT respectively.

Bunbury

Total trade for the port of Bunbury in 1995–96 was 8,525,010 tonnes. Major commodities exported were alumina (5,777,942 tonnes), mineral sands (960,463 tonnes) and woodchips (918,257 tonnes).

Albany

In 1995–96, the major commodities exported through Albany port were wheat (1,080,594 tonnes) and barley (351,716 tonnes). The total throughput at the port for the year was 1,750,381 tonnes.

Esperance

The largest single export commodity shipped from Esperance during 1995–96 was iron ore (1,481,973 tonnes). Tonnages of wheat and barley totalled 428,138 and 270,019 respectively. Total throughput for the year was 2,754,734 tonnes.

14.8 – COMPARATIVE PORT SHIPPING STATISTICS, 1995–96

Port	No. of Vessels	Gross Registered Tonnage
Port Hedland	708	37 463 193
Geraldton	274	4 466 067
Fremantle	1 786	33 541 854
Bunbury	278	6 477 889
Albany	103	2 018 678
Esperance	216	2 501 830

Source: Port Authorities

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Tourism

Chapter 15

TOURISM

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Chapter 15

TOURISM

A TOURISM SNAPSHOT OF WESTERN AUSTRALIA

Contributed by the Western Australian Tourism Commission

Tourism is the world's biggest industry with the gross output of the world's domestic and international tourism industry estimated at $US3.4 trillion in 1995. In Western Australia, tourism injected nearly $2.2 billion into the State's economy in 1994–95, thereby contributing an estimated 4.5% to the Gross State Product.

Over the next decade and beyond, the tourism industry offers tremendous growth opportunities and is likely to generate significant expansion in employment, not only in the hotel leisure sectors, but also indirectly for sectors such as retailing and transport.

Currently, tourism related jobs represent around 9% (72,800 people) of the Western Australian workforce. Since February 1986, tourism related employment in Western Australia has grown by 54% despite the recession in the earlier part of the decade.

It is estimated that 5 million people travel around Western Australia and spend nearly $2.2 billion. Currently, the intrastate visitor market (Western Australians travelling around the state) represents the largest proportion of the visitor numbers (79.4%) and visitor expenditure (37.2%).

With a population of 1.7 million people residing in the State, it is estimated that Western Australians currently take around 4.1 million intrastate trips annually. This is an average of nearly 2.5 trips per person per year. These intrastate travellers spend an estimated $802 million during these trips. They are the 'bread and butter' of the State's tourism industry.

Special Events

Special sporting events and business conferences are now one of the fastest growing niche markets in the tourism sector in Western Australia. Participants and spectators who attend these functions bolster the economy by usually including a holiday with their visit. A 1985 study by Derek Murray Consulting found that 'event related travel spending is double the average trip expenditure and for every dollar spent at an event, six dollars were spent in the host community'.

Currently, there are 30 hotel developments either under construction or planned for Perth according to the Perth Convention Bureau. Nine hotel establishments are presently in the construction, renovation or extension phase. These projects will provide Perth with an additional 1,074 rooms, create 538 permanent jobs and are expected to cost $171 million. The remaining 21 planned hotels would give Perth an extra 3,148 rooms and cost about $516 million.

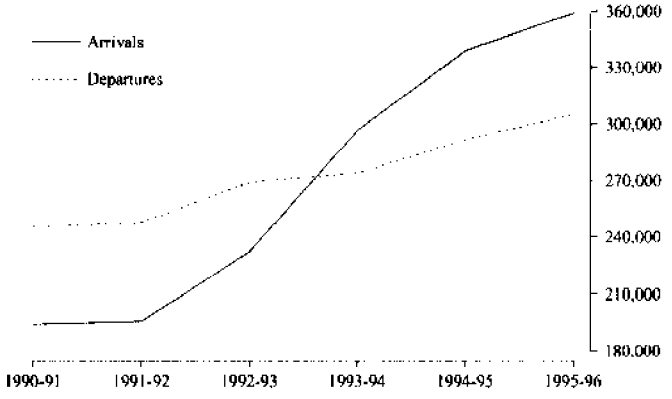
International Visitors

The latest International Visitor Survey figures show an increase in visitor numbers to Western Australia of 12.5% to 496,200 during the 12 months to June 1995. International visitor expenditure increased by 9.3% to $705 million during the same period.

Overseas Arrivals and Departures

The number of short-term overseas arrivals by air in 1995–96 was 358,990 — an increase of 6% over the 1994–95 figure of 339,180. The number of short-term resident departures by air from Western Australia was 305,110 — an increase of 5% compared with the 1994–95 figure of 291,770.

DIAGRAM 15.1 – SHORT-TERM OVERSEAS VISITOR ARRIVALS AND RESIDENT DEPARTURES BY AIR



Source: ABS Microfiche PMTR 0031

Arrivals

Short-term overseas arrivals to Western Australia have increased over the last six years by 85%. The growing popularity of Western Australia as a tourist destination for visitors from countries in Southeast Asia has been a major factor in this increase.

Since 1994–95, Singapore has overtaken the United Kingdom as the major source country of overseas arrivals to Western Australia. In 1995–96, 18% of short-term overseas arrivals were from Singapore compared to 16% from the United Kingdom. Overseas arrivals from Indonesia have increased almost sixfold over the last six years and represented 14% of short-term arrivals in 1995–96. Other major source countries were Malaysia (9%), Japan (8%) and New Zealand (7%).

15.1 – SHORT-TERM OVERSEAS VISITOR ARRIVALS (a) BY AIR

Country of residence	*1990–91*	*1991–92*	*1992–93*	*1993–94*	*1994–95*	*1995–96*
Singapore	27 990	30 920	41 250	50 700	59 600	64 680
United Kingdom	51 260	45 560	50 280	55 040	58 710	56 080
Indonesia	7 170	7 820	11 300	27 830	44 220	49 240
Malaysia	12 920	15 780	21 340	26 410	30 020	32 050
Japan	17 990	18 270	22 450	27 490	28 980	29 670
New Zealand	24 040	18 060	21 700	25 030	24 330	24 160
United States	8 750	7 830	7 600	9 560	10 740	13 120
Thailand	3 720	6 050	8 540	10 360	9 720	12 240
Germany	5 510	6 120	7 300	10 190	11 890	11 590
South Africa	1 710	2 220	4 550	5 980	6 900	7 640
All countries (b)	**194 020**	**193 570**	**232 490**	**296 880**	**339 180**	**358 990**

(a) Short-term overseas visitor arrivals are overseas visitors whose intended length of stay is less than 12 months.
(b) Due to rounding, discrepancies may occur between sums of components and totals.
Reference: ABS Microfiche PMTR0031

The main reasons for short-term visitors coming to Western Australia were to holiday (56%) or to visit friends and relatives (25%). However, over half of all short-term arrivals from the United Kingdom (57%) and New Zealand (52%) came to visit friends and relatives.

15.2 – SHORT-TERM OVERSEAS VISITOR ARRIVALS (a) BY AIR BY PURPOSE FOR VISIT, 1995–96

Country of residence	Convention or business	Visiting friends/ relatives	Holiday	Employment and education	Other and not stated	Total
Singapore	3 440	8 350	47 520	3 720	1 650	64 680
United Kingdom	3 500	31 730	18 220	1 070	1 560	56 080
Indonesia	2 940	3 770	35 610	4 240	2 680	49 240
Malaysia	2 080	6 030	20 800	2 490	650	32 050
Japan	2 320	1 250	23 840	1 190	1 070	29 670
New Zealand	2 390	12 460	6 800	1 280	1 230	24 160
United States	4 180	4 160	3 250	1 000	540	13 120
Thailand	1 290	890	8 770	890	410	12 240
Germany	860	1 780	8 470	170	310	11 590
South Africa	1 020	2 960	3 280	60	320	7 640
All countries (b)	**33 900**	**90 460**	**200 560**	**20 340**	**13 730**	**358 990**

(a) Short-term overseas visitor arrivals are overseas visitors whose intended length of stay is less than 12 months.
(b) Due to rounding, discrepancies may occur between sums of components and totals.
Reference: ABS Microfiche PMTR0031

Departures

Indonesia continued to be the most popular overseas destination for Western Australian residents representing 23% of all short-term departures in 1995–96. The United Kingdom (14%) was the second most popular destination followed by Singapore (10%), New Zealand (8%), Malaysia (7%) and the United States (7%).

15.3 – SHORT-TERM OVERSEAS DEPARTURES OF RESIDENTS (a) BY AIR

	1990–91	1991–92	1992–93	1993–94	1994–95	1995–96
Indonesia	47 860	50 650	59 600	64 590	68 220	68 700
United Kingdom	34 160	32 570	35 080	36 400	38 530	41 200
Singapore	31 330	33 160	29 480	24 170	25 800	29 260
New Zealand	22 990	21 310	22 680	21 980	25 750	25 040
Malaysia	20 730	20 540	24 480	23 380	23 070	22 780
United States	15 280	16 450	16 490	16 670	18 580	19 930
Thailand	13 110	10 000	12 520	14 520	15 500	15 580
Hong Kong	13 410	13 070	14 170	10 860	10 930	10 970
Canada	2 530	2 430	2 590	2 820	3 090	5 110
Italy	3 940	4 480	4 150	4 690	4 000	5 020
All countries (b)	**245 920**	**247 870**	**269 330**	**274 240**	**291 770**	**305 110**

(a) Short-term overseas departures are Australian residents, who live in Western Australia and whose intended period of stay abroad is less than 12 months.
(b) Due to rounding, discrepancies may occur between sums of components and totals.
Reference: ABS Microfiche PMTR0031

A holiday was the main reason for going overseas for over half (52%) of the short-term departures by Western Australian residents in 1995–96. A further 23% gave visiting friends or relatives as the main reason for going overseas and 17% were departing to attend conferences and conventions or for business purposes.

15.4 – SHORT-TERM OVERSEAS DEPARTURES OF RESIDENTS (a) BY AIR BY PURPOSE OF JOURNEY, 1995–96

Main country of stay	*Convention or business*	*Visiting friends/ relatives*	*Holiday*	*Employment and education*	*Other and not stated*	*Total*
Indonesia	8 200	3 060	53 060	2 700	1 670	68 700
United Kingdom	3 430	16 910	17 580	1 890	1 400	41 200
Singapore	6 650	4 610	15 670	1 560	780	29 260
New Zealand	3 230	9 990	10 120	570	1 140	25 040
Malaysia	4 950	5 200	10 430	1 240	960	22 780
United States	5 690	3 430	9 650	600	570	19 930
Thailand	1 400	900	12 750	230	300	15 580
Hong Kong	2 920	2 160	5 020	620	250	10 970
Canada	840	1 540	2 440	160	120	5 110
Italy	650	1 950	2 060	210	150	5 020
All countries (b)	**51 760**	**69 060**	**160 120**	**14 450**	**9 720**	**305 110**

(a) Short-term overseas departures are Australian residents, who live in Western Australia and whose intended period of stay abroad is less than 12 months.
(b) Due to rounding, discrepancies may occur between sums of components and totals.
Reference: ABS Microfiche PMTR0031

FREMANTLE

International experts have designated Fremantle as the best preserved 19th century seaport in the world. Over 150 buildings in the city centre have been classified by the National Trust.

Many of the buildings within the city centre are meticulously restored examples of architecture ranging from early colonial settlement, through the gold boom era to pre-war times.

Fremantle Museum and Arts Centre: This building was originally constructed in the 19th century as an asylum but today houses the Fremantle History Museum and Arts Centre and is recognised as one of the finest examples of colonial Gothic architecture. This centre hosts a variety of activities including live music concerts, classes and workshops in a range of arts and crafts and exhibitions by Western Australian artists.

Fremantle Prison: The Fremantle Prison was built by convict labour using limestone which was quarried on the site. The gaol was constructed to house 1,000 convicts and work began in 1851 with the prison being commissioned in 1855. It remained operational as a maximum security institution until 1991. The facility is now host to school groups, international and local visitors who may view the prison daily.

The Round House and Whalers Tunnel: The Round House was built in approximately 1830 which makes it the oldest public building in Western Australia. It was the Swan River Colony's first gaol comprising a twelve sided outer wall with small cells radiating from a central court.

The Fremantle Whaling Company was established in 1837 at Bathers Bay and whale oil was one of the first commodities exported from the colony. Whalers Tunnel was constructed to ease the transportation of oil and other goods between the beach and the main street of Fremantle.

Notre Dame University: Situated in the west end of Fremantle City, this university is operated by the Roman Catholic Church and its campus is made up of fourteen historical buildings. The facades of these buildings were retained but the internal structures were modified creating an enclosed central core of classrooms and accommodation units for students. The refurbishment of the first building began in 1991 and was completed in 1992 ready for the first intake of students. Currently there are 1,000 students enrolled and the university operates an exchange system with Notre Dame University in America.

Samson House: Lionel Samson and his brother William Samson arrived at the Swan River Colony on the *Calista* in 1829. In the same year Lionel Samson was granted the first spirit merchant's licence in the colony, which his descendants retain to this day. William Samson was the Mayor of Fremantle from 1892–1893. (Lionel Samson's son Michael was Mayor of Fremantle from 1905–1907 and his grandson William Frederick was Mayor from 1951–1972). The Samson family mansion, which was commissioned by Michael Samson, was constructed from limestone quarried on the site and was completed in 1900.

The Old Court House: This building was constructed in 1883–84, reflecting the classic lines of Georgian architecture, and was used as a court until 1900.

Fremantle Town Hall: The Town Hall was completed in 1887 for Queen Victoria's Golden Jubilee.

St John's Anglican Church: Constructed of limestone and completed in 1882, this building is an example of Early English decorative architecture.

St Patrick's Catholic Church: This Gothic designed building which was constructed from Cottesloe and North Fremantle limestone and was officially opened in 1900.

Fremantle Technical College: Built in 1912, this brick building with plinth and facings of Donnybrook stone show Art Nouveau decorative influences.

Fremantle has become famous for its sidewalk cafes, alfresco dining, unique events and its many drinking establishments. The Cappuccino Strip is the hub of Fremantle's alfresco cafes and coffee shops. The influence of the diverse ethnic population and their cultures has given rise to this location becoming one of the best known in Australia.

The America's Cup was responsible for the restoration of numerous hotels which were built during the gold rush boom of the 1890s and 1900s. Although some hotels have been extended, care has been taken to preserve the authenticity of the architecture.

Most of the facilities necessary for the Australian defence of the America's Cup were established along Mews Road. The racing yachts of the various international syndicates were moored within the protected waters of the Mews Road boat harbour. Mews Road was the site selected for the building of H. M. Bark *Endeavour*, a replica of Captain James Cook's original ship.

The Fremantle Markets were established in 1897 and continued operating until 1967 (a period of over 70 years). The markets re-opened in 1975 and were the first cosmopolitan-type retail market in Western Australia. The facade of this building is National Trust classified and reflects the ornate style of gold rush era architecture.

The 500 strong local fishing fleet is centred in Fremantle Fishing Boat Harbour and several significant cultural events can be directly attributed to this industry. October is the beginning of the fishing season in Fremantle and it is marked by the annual Blessing of the Fleet, a traditional ceremony for the multicultural fishing community.

Fremantle Sardine Festival is a unique annual event, usually held in January and, as the name suggests, the main attraction is the opportunity to sample sardines, a local delicacy.

The Fremantle Festival is an annual event held over ten days during the month of November. It provides visitors with a variety of activities such as arts and crafts, street theatre, exhibitions, sport and music, with a spectacular fireworks display marking the finale of the Festival.

ROTTNEST ISLAND

Rottnest Island lies 18 kilometres west of Fremantle, is 11 km long, 4.5 km at its widest point and is oriented almost due east-west. Rottnest was formed approximately 7,000 years ago when the ocean levels surrounding Western Australia rose and separated the island from the mainland. The first European recorded to have set foot on Rottnest Island was Abraham Leeman, an upper midshipman on the *Waeckende Boeij* (Watching Buoy), in March 1658. Under the command of Captain Samuel Volkerson of the Dutch East India Company, this expedition was attempting to locate another company vessel, the *Gilt Dragon*. Rottnest is known to local Aboriginals as 'Wadjemup' - a land across the sea.

The geography of Rottnest includes a lake system comprising seven permanent lakes and five smaller lakes which usually dry up in summer. These lakes cover an area of about 200 hectares and are a haven for over 80 species of birdlife. The vegetation of the island is sparse due to low rainfall (fresh water seeps through the limestone of which the island is mostly composed) and the effects of strong salt laden winds. Strategies are in place to reverse this situation through reafforestation programs and the fencing of young trees which is proving expensive but essential to protect them from quokkas.

The quokka is a small wallaby, adults stand about 25-30cm high and weigh between 2-5kgs. They are herbivorous, nocturnal marsupials native to Western Australia. These animals were once abundant throughout the south-west of Western Australia, ranging from Moore River north of Perth to Augusta in the south, but today populations are limited to small pockets in the extreme south-west, Bald Island and Rottnest Island. The quokka has the distinction of being one of the first marsupials to be recorded by Europeans when it was first observed on Rottnest in 1658.

The waters of the island, which are reserved exclusively for recreational fishing, abound with over 360 species of fish, a wide range of marine and intertidal crustaceans and nine species of seagrasses. The use of spearguns and gidgies, as well as spear fishing and net fishing, are prohibited within 800 metres of the island. All reef animals except squid, cuttlefish and octopus are protected in the waters near the island. Seagrasses are a valuable coastal resource and boat users are encouraged to minimise damage to these beds by anchoring in adjacent sandy areas and by not using outboard motors in shallow water over seagrasses.

The reefs surrounding Rottnest Island made the approach to the Swan River Colony treacherous. With the increasing loss of lives and vessels, the need for a warning system for shipping became a necessity. In 1841, instructions were given to construct a lighthouse using convict labour. It took 10 years to complete the 20 metre building at a cost of £500. In 1895, building commenced on a replacement lighthouse which was twice as high with a more powerful lamp. This structure was completed in 1896 under the supervision of C. Y. O'Connor. Today, this is one of only three manned lighthouses in Western Australia. It is electrically run and fully automatic, has a diesel standby generator and can be hand operated by a clockwork mechanism if necessary. A second lighthouse was erected in 1899 after the City of York sank on the north coast with the loss of twelve lives.

Shipwrecks along the coastline of Rottnest are a major attraction for recreational divers and have led to the creation of the underwater Rottnest Wreck Heritage Trail. This is a combined venture by the Western Australian Museum and the Rottnest Island Board assisted by Elder Prince Marine Services and the State Bicentennial Commemorative Project. Underwater plaques are positioned giving details of the wrecks which are protected under an act prohibiting the removal of artefacts or wilful damage of any sort.

Tricentennial

On 30 December 1696, an expedition commanded by Willem de Vlamingh dropped anchor to the north of Rottnest Island. The fleet consisted of the frigate *Geelvinck*, the hooker *Nijptangh* and the galliot *'t Weseltje* and had a combined crew of 194 men. De Vlamingh mistook the native Quokkas for large rats which resulted in him naming the island Rottenest (Rottnest), which literally translated means Rat's Nest. (The Swan River was also named by de Vlamingh within days of visiting Rottnest.) The voyage was taken on the instruction of the Dutch East India Company and left the port of Texel in the Netherlands in May 1696. The patron of the expedition was Lord Nicolaes Witson, one of the administrators of the company, whose interests were scientific as well as commercial. Witson equipped the voyage with two artists to visually record the discoveries made on the journey to the 'Great South Land'. The Rottnest Island and Swan River Tricentennial Naming Committee was charged with the co-ordination of events to celebrate this historic voyage. The actual landing of de Vlamingh and his crew on Rottnest Island was re-enacted on December 29 1996.

In 1831, Robert Thomson and his family became the first settlers on Rottnest Island. In 1838, the Government resumed all land on Rottnest for the establishment of a prison for Aboriginal men. During the sixty five years of its operation 3,400 Aboriginal men from throughout Western Australia were imprisoned on the island. It is believed that 364 of these Aboriginal prisoners died and are buried on the island. Many of the buildings constructed by the Aboriginal prisoners are still in use today. After the closure of the prison in 1903, the island was opened for recreation.

During World War I the island was used as an internment camp for men of German and Austrian descent. In 1917 Rottnest and the waters surrounding the island were declared a Class A Reserve for all time. When World War II was declared the island was again closed to the public and became the centre for coastal defence for Fremantle Harbour and metropolitan Perth.

Rottnest Island is now a popular holiday resort administered by the Rottnest Island Authority. The absence of motor vehicles on the island (apart from a few service vehicles) creates a leisurely and relaxed atmosphere. A network of sealed roads traverse the island and visitors can explore by foot, bicycle or bus. Services available on the island include banking, post office, hairdresser, bakery, laundry, nursing post, police station, library, museum, church services and various eating facilities.

Tourist Accommodation

Accommodation for visitors to Rottnest Island ranges from four star accommodation to camping facilities. The Rottnest Island Authority offers 250 holiday homes, a youth hostel, and dormitory style and self-contained chalet accommodation at a variety of locations.

15.5 – TOURIST ACCOMMODATION: 31 DECEMBER 1995

Holiday Flats, Units And Houses (a)	*Rottnest Island (b)*	*City of Perth*	*Western Australia*
Bed Spaces	1 180	550	11 980
Employment (persons) (c)	101	44	632
Unit Nights Occupied	19 436	14 247	143 515
Unit Occupancy Rates (%)	85.5	77.4	60.7
Average Length of Stay (days)	6.1	4.2	4.0
Takings from Accommodation ($'000)	1 216	655	10 493

(a) Holiday flats, units and houses (excluding establishments predominantly operated on a time share basis) which are operated by owners, managers or real estate agents who have sole letting rights to at least five flats, units or houses for short-term letting. They are mainly self-contained in terms of cooking, bath (or shower) and toilet facilities and do not have breakfast available for guests. Data for holiday flats, units and houses include short-term owner occupation as well as paying guest occupation.
(b) Unincorporated area
(c) Employment numbers exclude real estate agents and their employees.
Reference: Catalogue No. 8635.5

Fremantle offers a wide variety of accommodation and recently the area has seen an increase in 'Bed and Breakfast' facilities.

15.6 – TOURIST ACCOMMODATION: 31 DECEMBER 1995

Hotels, Motels And Guest Houses With Facilities (a)	*City of Cockburn and Fremantle area (b)*	*City of Perth*	*Western Australia*
Establishments	7	28	334
Bed Spaces	952	8 774	38 951
Employment (persons)	425	2 683	9 756
Room Nights Occupied	29 688	276 062	851 317
Room Occupancy Rates (%)	81.9	80.8	62.2
Takings from Accommodation ($'000)	3 342	25 250	71 086

(a) Hotels, motels and guest houses, with facilities being hotels licensed to operate a public bar and motels, private hotels and guest houses all of which provide a bath (or shower) and toilet in most guest rooms and have breakfast available for guests. These establishments provide predominantly short-term accommodation (i.e. for periods of less than two months) to the general public.
(b) The Fremantle area comprises the City of Fremantle and the Town of East Fremantle. City of Cockburn includes Rottnest Island.

References

ABS Publications — *Tourist Accommodation Western Australia* (8635.5).

Other Sources — Rottnest Island Authority.

Fremantle City Library and Information Service.

Western Australian Tourism Commission.

Public Finance

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PUBLIC FINANCE

Public Finance in 1994–95

Within Western Australia, there are three levels of government (public) finance — Commonwealth, State and Local. The combined outlays of the State and Local Governments were $7,981 million in 1994–95, resulting in a surplus of $544 million. The major outlays of State and Local Government were for:

- education ($1,966 million),
- health ($1,277 million),
- public debt ($1,053 million), and
- transport and communications ($791 million).

In 1994–95, total outlays of State authorities were $7,496 million. Grants received from the Commonwealth totalled $3,368 million, an increase of 2.3% over the previous year.

Commonwealth–State Financial Relations

The major institutions assisting in the management of Commonwealth funding to State Governments (in this chapter, 'States' or 'State Governments' should be taken to include the Northern Territory and the Australian Capital Territory) are:

- the Premiers' Conference,
- the Commonwealth Grants Commission, and
- the Australian Loan Council.

Premiers' Conference

The annual Premiers' Conference determines the total amount of general revenue assistance and the share of each of the States. Although these payments are at the Commonwealth's discretion, they are subject to negotiation between the Commonwealth and States at the Conference.

Commonwealth Grants Commission

The Commonwealth Grants Commission makes recommendations on the size of financial assistance grants to each State based on the value of its calculated relative index which is updated annually. This relative index is based on the ability of States to provide comparable services.

The provision of these services is dependent on States' capacity to raise taxes and other revenues, levels of Commonwealth recurrent tied grants and the actual costs of providing these services by the States.

16.1 – COMMONWEALTH GENERAL AND SPECIFIC PURPOSE PAYMENTS (a), 1994–95

Payments	*Western Australia*	*Australia*
	$m	$m
General purpose payments—		
Revenue	1 569.8	15 065.6
Capital	22.1	224.4
Total	*1 591.9*	*15 290.0*
Specific purpose payments—		
Current	1 516.7	14 446.4
Capital	204.2	2 516.8
Total	*1 720.9*	*16 963.2*
Total payments	**3 312.8**	**32 253.2**

(a) Excludes direct Commonwealth payments to local authorities. In 1994–95 these payments totalled $16million (current) and $3 million (capital).
Source: Commonwealth Final Budget Outcome 1994–95

Australian Loan Council

Since 1993–94, the Loan Council has overseen the financing requirements of the Commonwealth Government and State and Territory Governments using a system of Loan Council Allocations. These are more comprehensive than the previous 'global borrowing limits' and governments have considerably more freedom to determine their own requirements. The emphasis is now on providing the financial markets with information to properly assess the financial position of governments and to rate their debt accordingly. This reduces the need for the Loan Council to dictate financing requirements.

Major Issues

The Commonwealth has agreed to increase the real per capita value of the pool of financial assistance grants in 1996–97. This will be conditional on the States complying with their obligations under the *Agreement to Implement the National Competition Policy and Related Reforms.*

For the third consecutive year, the Commonwealth Grants Commission has recommended a reduction of more than $50 million in Western Australia's share of financial assistance grants.

The major reasons for this reduction are:

- increases in Western Australia's capacity to raise taxes and royalties (primarily from mining) compared with other States, and
- the State's high share of tied grants.

The reduced funding still gives Western Australia a per capita grant which is slightly higher than the average of all States. This takes into account allowances for factors such as:

- the relatively high number of school students in Western Australia,
- the cost of servicing small widely separated communities in the State, and
- the special needs of the State's large Aboriginal population.

The Commonwealth has revised arrangements for the indexation of specific purpose payments to the States, including:

- A re-negotiation in 1995–96 of elements relating to the five year Medicare Agreements that has resulted in:
  - simplified arrangements for the 'bonus pools', which provide additional funding to States with high or increasing levels of public hospital services,
  - a marginal increase in overall 'bonus pool' funding to help offset the additional costs on State public hospitals from falling private insurance levels,
  - expanded funding for mental health, and
  - the removal of the need to obtain project by project approval under the 'incentive package'.
- An agreement that, in the long term, States will be fully responsible for the construction and maintenance of public housing and the Commonwealth will be fully responsible for all rental subsidies.

The States and the Commonwealth are in the process of developing a funding arrangement for the next three years.

Commonwealth Financial Assistance

Commonwealth Government payments to the State Governments may be classified under two major headings — general purpose payments and specific purpose payments.

General Purpose Payments

General purpose payments provide general budgetary assistance and the States are free to determine the spending of these monies according to their own budgetary priorities.

Specific Purpose Payments

Specific purpose payments are generally a means of meeting the objectives and priorities of Commonwealth Budget programs. They are provided subject to certain conditions, for example:

- the Commonwealth specifying the purpose for which the funds may be spent,
- the States being required to contribute some specified amount of their own funds to the program to qualify for the assistance.

Specific purpose current payments to Western Australia for 1994–95 amounted to $1,517 million. The major payments were for:

- schools ($243 million),
- higher education ($343 million), and
- Medicare base grant ($330 million).

Specific purpose capital payments to Western Australia in 1994–95 amounted to $204 million with the largest amounts allocated to public housing ($70 million) and roads ($55 million).

16.2 – OUTLAYS BY PURPOSE: STATE GOVERNMENT

Item	*1992–93*	*1993–94*	*1994–95*
	$m	$m	$m
General public services	410	460	483
Defence	..	—	—
Public order and safety	510	530	573
Education	1 815	1 843	1 965
Health	1 248	1 302	1 259
Social security and welfare	349	342	312
Housing and community amenities	391	350	468
Recreation and culture	124	141	162
Fuel and energy	155	119	196
Agriculture, forestry and fishing	154	173	102
Mining, manufacturing and construction	43	56	54
Transport and communications	882	740	623
Other economic affairs	170	290	143
Other purposes	1 223	1 091	1 157
Total	**7 475**	**7 437**	**7 496**

Reference: Catalogue No. 5512.0

State Government Finance

The data in this section relate to the financial activities of the Government of Western Australia. It includes those statutory authorities, boards, commissions and corporations, and incorporated bodies (other than financial enterprises) in which the State Government, or its agencies, has a controlling interest.

Western Australian Government outlays increased from $7,437 million in 1993–94 to $7,496 million in 1994–95.

Table 16.2 provides a breakdown of Government expenditure by purpose. Education is the largest single area of expenditure representing 26.2% of total outlays in 1994–95. The next largest areas of expenditure are health (16.8%) and transport and communications (8.3%).

16.3 – STATE AUTHORITIES REVENUE AND FINANCING TRANSACTIONS

Item	*1992–93*	*1993–94*	*1994–95*
	$m	$m	$m
Revenue—			
Taxes, fees, fines	2 010	2 376	2 549
Net operating surpluses of public trading enterprises	831	863	735
Interest received	138	153	204
Other revenue	580	626	714
Grants received	3 217	3 292	3 368
Total revenue	6 776	7 309	7 571
Financing transactions—			
Net Advances received	-197	-135	-179
Net borrowing	774	-45	-36
Increase in provisions	251	286	387
Other financing transactions	-129	21	-246
Total financing transactions	699	*128*	*74*
Total funds available	**7 475**	**7 437**	**7 496**

Reference: Catalogue No. 5512.0

Table 16.3 shows that the main components of the revenue of Western Australian State authorities are grants, taxation and net operating surpluses of public trading enterprises.

In 1994–95 total State Government revenue increased by 3.6% to $7,571 million. Of this, $2,549 million (33.7%) was raised in the form of taxes, fees or fines, with $3,368 million (44.5%) being received as grants.

The major items contributing to total taxes, fees and fines were:

- taxes on financial and capital transactions which raised $587 million (23.2%),
- payroll tax $570 million (22.5%), and
- franchise taxes on petroleum, tobacco and liquor $497 million (19.7%).

Local Government Finance

The financial powers of Local Government Authorities, including loan raising, the levying of loan rates, the expenditure of loan monies and the repayment of loans, are derived principally from the *Local Government Act 1995*, the main provisions of which are outlined in Chapter 3 Government.

Total outlays of Local Government Authorities were $694 million in 1994–95, with the major components being:

- transport and communications ($243 million), and
- recreational facilities and services ($169 million).

Total revenue was $760 million, the main components of which were taxes, fees and fines ($475 million) and grants ($218 million).

Loan Transactions

Loans are raised mainly from banks, insurance companies and superannuation funds. A number of Local Government Authorities also raise loans through the Western Australian Treasury Corporation.

The State Government exercises a measure of supervision over the loan transactions of Local Government Authorities and, where a loan is repayable in full at maturity, maintains the necessary sinking fund at the Treasury.

CENTRAL BORROWING AUTHORITY

Contributed by Western Australian Treasury Corporation

The Western Australian Treasury Corporation is the State's central borrowing authority and its role is to borrow funds on behalf of the public authorities within the State at the lowest possible cost.

Each State formed a central borrowing authority in the early to mid 1980s following the Campbell Committee Report on the Australian Financial System recommendation for the Australian States to coordinate and consolidate the borrowing programs of their semi-government authorities.

The advent of central borrowing authorities enabled the development of large lines of highly marketable fixed interest rate securities by consolidating the borrowings of individual authorities. This concept gives investors a choice of large issues maturing from two to 10 years, which can be easily bought and sold. The marketability of these securities has made them attractive to investors to hold and therefore improves the price they are prepared to pay, thereby reducing the cost of borrowing.

In addition, the consolidation of borrowings enables the Corporation to access the major offshore markets. The Corporation's policy is not to take foreign currency risk and therefore offshore borrowings are only effected when the all-in cost in Australian dollars is less than that for equivalent borrowings in the domestic market. Authorities, under the central borrowing arrangements, are therefore no longer restricted to a limited or narrow market and consequently benefit from the lower cost of debt.

As a borrower, the State's objective is often different to what investors want. In order to obtain funds at the lowest cost it must satisfy the needs of investors and therefore must, from time to time, accept maturities which may be contrary to its optimum maturity structure.

It will be appreciated that the State will not want all debt to be repriced every 90 days and equally it will not want all debt to be repriced every 10 years. The prudent approach is to have debt spread across the maturity spectrum in order to reduce the impact of sudden adverse changes in interest rate levels. The Corporation achieves this by hedging, through the use of derivative instruments such as futures and interest rate swaps, the interest rate exposure incurred in the borrowing process so that the debt profile matches the needs of the State.

References

ABS Publications

Classification Manual For Government Finance Statistics (1217.0)

Government Finance Statistics, Australia (5512.0)

Taxation Revenue, Australia (5506.0)

Other Publications

Commonwealth Final Budget Outcome 1994–95

Commonwealth 1996–97 Budget Paper No. 3

Western Australia 1996–97 Budget Paper No. 5

Labour Market

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LABOUR MARKET

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Chapter 17

LABOUR MARKET

The Labour Force

Labour Force Survey

The labour force is defined as persons aged 15 years and over who are either employed or available for work. Characteristics of the labour force are obtained from the Labour Force Survey. This survey is a component of the Monthly Population Survey conducted by the Australian Bureau of Statistics (ABS).

Each month, the survey records information from approximately 65,000 individuals throughout Australia. A random sample is taken of approximately 30,000 private dwellings (4,000 in Western Australia) and a number of non-private dwellings such as hotels and caravan parks.

The survey is conducted by trained interviewers, generally during the second and third weeks of each month, and is designed to enable analysis of the labour force by a number of characteristics, including sex, age, birthplace, occupation, hours worked and duration of unemployment.

The Labour Force Survey is a major economic indicator and is essential to governments, employer associations, trade unions and other organisations for effective monitoring of the performance of the labour force and the overall economy.

Two important labour force indicators are:

- Participation rate: the number of persons in the labour force expressed as a percentage of the civilian population aged 15 years and over; and
- Unemployment rate: the number of unemployed persons expressed as a percentage of the labour force.

Table 17.1 shows the number of males seeking work increased by nearly 3,000 between May 1995 and May 1996. The number of unemployed females rose from 26,900 to 27,000.

The seasonally adjusted unemployment rate for males increased from 7.4% in May 1995 to 7.9% in May 1996. The female unemployment rate remained the same at 7.2% over the same period.

17.1 – LABOUR FORCE STATUS: MAY

	1994	1995	1996
	000	000	000
	MALES		
Civilian population (a)	652.8	666.2	680.8
Labour force—	500.1	514.6	520.0
Employed—			
full-time	412.3	427.3	427.7
part-time	46.7	48.4	50.4
Unemployed	41.1	38.9	41.9
Unemployment rate (%)—			
original	8.2	7.6	8.1
seasonally adjusted	8.0	7.4	7.9
Participation rate (%)	76.6	77.2	76.4
	FEMALES		
Civilian population (a)	658.6	672.2	687.1
Labour force—	357.4	386.8	386.5
Employed—			
full-time	177.6	194.1	193.5
part-time	149.0	165.9	166.0
Unemployed	30.8	26.9	27.0
Unemployment rate (%)—			
original	8.6	6.9	7.0
seasonally adjusted	8.9	7.2	7.2
Participation rate (%)	54.3	57.5	56.2

(a) Aged 15 years and over
Reference: Cat No. 6203.0

Western Australia's participation rate of 66.3% was the highest of all States. As at May 1996, the participation rate for males was 76.4% and for females 56.2%.

Teenage Unemployment

Table 17.2 shows the unemployment rate for the 15–19 year age group has increased from 14.2% in May 1995 to 16.9% in May 1996 but lower than the 21.2% in May 1994.

The Labour Force Survey estimated there were 128,027 people in the 15–19 year age group in Western Australia in May 1996. Of these, 30,457 were employed full-time and 39,933 worked part-time. A total of 14,320 were unemployed and 43,317 were not in the labour force.

Composition of the Labour Force

The composition of the labour force (Table 17.3) differs for males and females. Of the estimated 478,128 employed males, 20.0% are employers or own account workers and 79.2% are employees. Of the estimated 359,456 employed females, 12.4% are employers or own account workers and 86.3% are employees.

17.2 – UNEMPLOYMENT RATES: MAY

Age group	1994	1995	1996
	%	%	%
	WESTERN AUSTRALIA		
15–19	21.2	14.2	16.9
20–24	12.6	10.7	12.4
25–34	7.4	7.2	6.2
35–44	5.1	6.0	5.6
45–54	5.3	4.7	4.0
55 and over	7.5	5.5	8.3
Overall rate	**8.4**	**7.3**	**7.6**
	AUSTRALIA		
15–19	23.2	20.8	20.4
20–24	13.9	12.1	11.9
25–34	8.9	7.6	7.5
35–44	7.2	6.3	6.1
45–54	6.2 --	5.8	5.9
55 and over	8.2	6.2	6.2
Overall rate	**9.7**	**8.4**	**8.3**

Reference: Microfiche GRP930 Table SR3A

17.3 – EMPLOYMENT STATUS(a): MAY

Employment status	1994	1995	1996
	'000	'000	'000
	MALES		
Employer	24.5	29.1	29.7
Own Account Workers	60.8	66.4	66.1
Employees	370.6	377.5	378.7
Contributing Family Workers	3.1	2.7	3.6
Unemployed	41.1	38.9	41.9
Not in labour force	152.7	151.6	160.8
Total	**652.8**	**666.2**	**680.8**
	FEMALES		
Employer	14.1	16.6	12.6
Own Account Workers	29.8	33.4	32.0
Employees	278.1	305.8	310.1
Contributing Family Workers	4.6	4.1	4.7
Unemployed	30.8	26.9	27.0
Not in labour force	301.2	285.4	300.7
Total	**658.6**	**672.2**	**687.1**

(a) Civilian population aged 15 years and over
Reference: Microfiche GRP700 Table E27 and Cat No. 6203.0

APPRENTICESHIPS AND THE BUSINESS CYCLE

Contributed by the Western Australian Department of Training

Apprenticeships are a form of employment based training whereby apprentices are employed while training. As such, apprentice commencements tend to rise during times of economic expansion and fall during times of economic contraction.

Since most apprenticeships are four years in length, there is a lag of four years between increases in apprenticeship commencements and increases in the number of trained tradespersons. By the time these apprentices complete their training, economic conditions have usually changed and there may no longer be high demand for tradespersons.

In fact, apprenticeship completions are often out of phase with the demand for tradespersons. As the number of completing apprentices is dependent on decisions to hire made four years ago, it is often the case that apprenticeship completions are often at their lowest in the middle of an economic expansion, thus exacerbating skill shortages.

Conversely, apprentices who began when the economy was expanding often find themselves completing their training when the economy is in recession, making it hard for them to find employment as tradespersons.

Employment by Industry

Over the period from May 1995 to May 1996, the distribution of employment between industries has varied. Table 17.4 shows significant increases in employment in Retail trade, Education, Cultural and recreational services, Property and business services, Health and community services and Communication services.

Employment continued to be dominated by four major industries: Retail trade; Manufacturing; Property and business services; and Health and Community services. These industries employed 383,400 people, or 45.8% of all employed persons in Western Australia.

17.4 – EMPLOYED PERSONS(a): MAY

Industry division	*1995*	*1996*
	'000	'000
Agriculture, forestry and fishing	50.5	47.6
Mining	29.4	28.1
Manufacturing	89.0	84.8
Electricity, gas and water supply	9.3	7.0
Construction	67.9	68.7
Wholesale trade	46.8	42.7
Retail trade	122.6	131.9
Accommodation, cafes and restaurants	41.1	36.3
Transport and storage	35.8	36.3
Communication services	12.8	15.8
Finance and insurance	27.5	22.3
Property and business services	82.0	86.1
Government administration and defence	33.7	34.3
Education	55.7	58.6
Health and community services	78.4	80.6
Cultural and recreational services	17.6	22.3
Personal and other services	35.4	34.2
Total all industries	**835.6**	**837.6**

(a) Aged 15 years and over
Reference: Microfiche GRP930 Table SR4

Average Weekly Hours Worked

Since 1948, the majority of employees in Australia have had a standard working week of 40 hours or less. However, the number of hours constituting a full week's work (excluding overtime) differs between industries.

In May 1996, the average weekly hours worked by employees over all industries was 36.4 hours per week. The lower average weekly hours worked by females, as shown in Table 17.5, can be largely attributed to the much greater proportion of females working part-time. Females worked an average of 28.7 hours per week compared with an average for males of 42.2 hours per week.

The Mining industry is traditionally an area where longer hours are worked. In May 1996, the average weekly number of hours worked in mining was 52.5.

17.5 – AVERAGE WEEKLY HOURS WORKED(a): MAY 1996

Industry	*Males*	*Females*	*Persons*
	hours	hours	hours
Agriculture, forestry and fishing	51.9	31.3	45.8
Mining	54.1	41.8	52.5
Manufacturing	42.1	30.8	39.4
Electricity, gas and water supply	36.7	31.4	35.9
Construction	43.3	25.1	40.1
Wholesale trade	43.2	33.1	40.3
Retail trade	39.1	25.9	32.2
Accommodation, cafes and restaurants	40.2	29.5	33.6
Transport and storage	44.0	31.5	41.0
Communication services	38.1	25.0	33.7
Finance and insurance	39.9	33.3	35.7
Property and business services	40.6	25.2	34.3
Government administration and defence	38.5	34.3	36.8
Education	39.2	31.3	34.0
Health and community services	38.6	28.0	30.4
Cultural and recreational services	34.4	25.7	29.9
Personal and other services	38.4	27.6	33.1
All industries	**42.2**	**28.7**	**36.4**

(a) The estimates refer to actual hours worked, not hours paid for.
Reference: Microfiche GRP200 Table E3

Labour Force Supplementary Surveys

There are more than 20 supplementary surveys which measure labour force and social and demographic characteristics of households. The supplementary surveys are either conducted annually or less frequently depending on statistical demand, and are grouped as Educational and Other topics.

Educational topics include:

- Labour Force Status and Educational Attainment,
- Transition from education to work, and
- Participation in Education.

Other topics include:

- Job Search Experience of Unemployed Persons,
- Superannuation, and
- Labour Mobility.

Job Vacancies

Job vacancy statistics are produced from a quarterly sample survey of employers throughout Australia. A job vacancy is a job available for immediate filling on the survey date and for which recruitment action had been taken by the employer.

Recruitment action includes efforts to fill vacancies by advertising, by factory notices, by notifying employment agencies or trade unions and by contacting, interviewing or selecting applicants already registered with the organisation. Excluded are jobs available only to persons already employed by the organisation.

In May 1996, Western Australia had 5,400 job vacancies compared with 6,200 in May 1995. The largest number of Western Australian job vacancies recorded by the survey, since it commenced in 1983, was 7,400 in February 1989.

Wages and Earnings

Average Weekly Earnings

Statistics of average weekly earnings of employees are produced quarterly and are based on employment and earnings information obtained from a sample survey of employers. They relate to earnings for a single weekly pay period ending near the middle of each quarter.

Earnings are taken to be gross earnings for the pay period before taxation and any other deductions (such as superannuation). Statistics are produced for average weekly ordinary time earnings (including all allowances, payments, commissions etc) for full-time adults, average weekly total earnings (ordinary time earnings plus overtime) for full-time adults, and average weekly total earnings for all employees.

During the last decade, average weekly earnings of employees increased steadily and comparably for Western Australia and Australia. In May 1986, the Western Australian trend estimate of average weekly earnings for all employees was $365.20, slightly below the Australian trend estimate of $368.50. By May 1996, the Western Australian average had increased to $557.40 (an increase of 52.6% or an annual compound rate of 4.3% over the decade), while the Australian average had increased to $564.60 (an increase of 53.2% or an annual compound rate of 4.4%).

In this period, the Consumer Price Index for Perth increased by 57.6%, which suggests that real incomes for Western Australians declined slightly during the decade.

Table 17.6 shows a large difference between male and female average weekly earnings. In May 1996, average weekly total earnings

17.6 – AVERAGE WEEKLY EARNINGS OF EMPLOYEES: Trend Series MAY

Year	Full-time adult employees: Ordinary earnings	Full-time adult employees: Total earnings	All employees: total earnings
	$	$	$
	MALES		
1991	613.20	656.10	598.10
1992	635.50	683.30	608.10
1993	642.40	699.50	622.10
1994	669.00	721.50	633.50
1995	704.50	767.70	664.10
1996	753.10	810.50	692.40
	FEMALES		
1991	497.50	507.30	367.20
1992	516.30	526.60	379.00
1993	503.90	514.10	369.80
1994	519.30	533.70	381.20
1995	543.50	558.50	403.70
1996	573.40	583.60	410.80
	PERSONS		
1991	573.20	604.50	490.30
1992	593.80	628.30	501.90
1993	594.00	634.60	502.30
1994	613.50	651.80	510.80
1995	647.20	693.20	541.90
1996	688.50	729.00	557.40

Reference: Catalogue No. 6302.0

for all male employees were 68.5% higher than the average weekly total earnings for all female employees. Much of this difference can be attributed to the larger proportion of females who work in part-time jobs. In May 1996, 53.4% of females were employed in jobs other than in full-time adult employment compared with only 22.2% of males. At that time the average weekly total earnings of full-time adult males was $810.50, which was 38.9% higher than the average weekly total earnings of full-time adult females ($583.60).

Over the period 1991 to 1996, the average weekly total earnings for full-time adult males increased at a higher rate (23.5%) than the average weekly total earnings for full-time adult females (15.0%).

Table 17.7 shows that in May 1996 employees in the mining industry had the highest average weekly earnings of any industry. Female earnings were consistently lower than male earnings in all industries. In the Property and business services industry, where the disparity was greatest, the average weekly earnings of full-time adult male employees was 72.4% higher than the average weekly earnings of full-time adult female employees.

17.7 – AVERAGE WEEKLY EARNINGS OF EMPLOYEES, BY INDUSTRY(a), MAY 1996

Industry	Full time adult employees total earnings		
	Males	Females	Persons
	$	$	$
Mining	1 234.50	878.40	1 185.80
Manufacturing	718.70	530.50	684.60
Electricity, gas and water supply	828.70	612.60	803.40
Construction	913.00	642.20	880.30
Wholesale trade	711.40	573.10	677.50
Retail trade	598.60	477.30	557.80
Accommodation, cafes and restaurants	487.60	480.50	484.30
Transport and storage	873.40	624.90	827.40
Communication services	852.40	676.60	797.30
Finance and insurance	838.30	554.60	684.20
Property and business services	981.00	568.90	771.10
Government administration and defence	691.10	618.30	666.80
Education	774.60	654.60	703.30
Health and community services	806.70	591.90	656.10
Cultural and recreational services	794.60	612.50	716.60
Personal and other services	696.30	509.40	621.90
Total industries (b)	**805.40**	**588.80**	**726.80**

(a) From August 1994 industry information is classified according to the Australian and New Zealand Standard Industrial Classification.
(b) Excludes Agriculture, forestry and fishing.
Reference: Catalogue No. 6302.0

Labour Costs

Labour costs are those costs, paid by the employer, associated with the employment of labour. Details of major labour costs such as earnings, payroll tax, superannuation, workers' compensation and fringe benefits tax, in both the private and public sectors, are collected by the Survey of Major Labour Costs. This Survey was run annually from 1985–86 to 1991–92, then in 1993–94. The next survey will be conducted in relation to 1996–97 and thereafter it will be run every five years.

Total labour costs rose significantly (19.2%) between 1991–92 and 1993–94 to $16,704m; however, in terms of cost per employee the increase was only 3.5% to $31,313 (Tables 17.8 and 17.9).

Over the two year period, the pattern of contributions made by the separate categories of major labour costs remained constant. Employee earnings continued to be the major cost in both the private and public sectors, accounting for approximately 90% of the total labour cost. Employer contributions to employee superannuation schemes were the next most significant cost, accounting for 4.4% of total labour costs.

17.8 – MAJOR LABOUR COSTS

Type of cost	1990–91		1991–92		1993 94	
	$m	%	$m	%	$m	%
		PRIVATE SECTOR				
Total Labour Costs	**8 631**	**100.0**	**8 672**	**100.0**	**11 111**	**100.0**
Earnings	7 737	89.6	7 781	89.7	9 932	89.4
Other labour costs—						
Payroll tax	319	3.7	308	3.6	361	3.3
Workers' compensation	167	1.9	149	1.7	220	2.0
Superannuation	326	3.8	357	4.1	500	4.5
Fringe benefits tax	81	0.9	77	0.9	98	0.9
Total other labour costs	*893*	*10.4*	*891*	*10.3*	*1 179*	*10.6*
		PUBLIC SECTOR				
Total Labour Costs	**4 965**	**100.0**	**5 342**	**100.0**	**5 593**	**100.0**
Earnings	4 544	91.5	4 848	90.8	5 147	92.0
Other labour costs—						
Payroll tax	101	2.0	99	1.9	101	1.8
Workers' compensation	75	1.5	72	1.4	88	1.6
Superannuation	229	4.6	307	5.8	241	4.3
Fringe benefits tax	16	0.3	15	0.3	16	0.3
Total other labour costs	*421*	*8.5*	*494*	*9.2*	*446*	*8.0*
		TOTAL				
Total Labour Costs	**13 596**	**100.0**	**14 014**	**100.0**	**16 704**	**100.0**
Earnings	12 281	90.3	12 629	90.1	15 079	90.3
Other labour costs—						
Payroll tax	420	3.1	407	2.9	462	2.8
Workers compensation	242	1.8	221	1.6	308	1.8
Superannuation	555	4.1	664	4.7	741	4.4
Fringe benefits tax	97	0.7	93	0.7	114	0.7
Total other labour costs	*1 315*	*9.7*	*1 385*	*9.9*	*1 625*	*9.7*

Reference: Catalogue No. 6348.0

17.9 – MAJOR LABOUR COSTS PER EMPLOYEE

Type of cost	*1990–91*	*1991–92*	*1993–94*
	$	$	$
	PRIVATE SECTOR		
Total Labour Costs	**26 555**	**28 375**	**28 918**
Earnings	23 806	25 458	25 850
Other labour costs—			
Payroll tax	982	1 009	940
Workers' compensation	515	487	572
Superannuation	1 004	1 167	1 301
Fringe benefits tax	248	253	256
Total other labour costs	*2 749*	*2 917*	3 069
	PUBLIC SECTOR		
Total Labour Costs	**30 942**	**33 861**	**37 480**
Earnings	28 316	30 730	34 490
Other labour costs—			
Payroll tax	631	628	676
Workers' compensation	468	457	589
Superannuation	1 428	1 949	1 616
Fringe benefits tax	99	6	108
Total other labour costs	*2 626*	*3 131*	*2 990*
	PUBLIC AND PRIVATE SECTOR		
Total Labour Costs	**28 005**	**30 243**	**31 313**
Earnings	25 297	27 253	28 267
Other labour costs—			
Payroll tax	866	879	866
Workers' compensation	499	477	577
Superannuation	1 144	1 434	1 389
Fringe benefits tax	199	200	215
Total other labour costs	*2 708*	*2 990*	*3 047*

Reference: Catalogue No. 6348.0

Industrial Disputes

Industrial disputes statistics relate only to disputes which involve stoppages of ten working days or more at the establishment where the stoppage occurred. The effects these disputes have on other establishments, such as stand downs because of lack of materials, disruption of transport services, power cuts etc., are not included.

Over the last few years, the number of industrial disputes has decreased. The number of industrial disputes for the year ended May 1996 was 66 compared with 75 disputes for the year ended May 1995. The number of working days lost per thousand employees was 166 in the year ended May 1996 compared with 50 in the year ended May 1995.

Details of stoppages are obtained primarily from the Department of Industrial Relations, trade journals, publications, newspapers and the employers and trade unions involved in the disputes.

References

ABS Publications

Average Weekly Earnings, States and Australia (6302.0)

Award Rates of Pay Indexes, Australia (6312.0)

How Workers Get Their Training (6278.0)

Labour Costs, Australia (6348.0)

The Labour Force, Australia (6203.0)

Labour Statistics (6101.0)

Consumer And Producer Prices

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Chapter 18

CONSUMER AND PRODUCER PRICES

Prices are a key factor in the operation of the Australian economy, and indexes which measure movements in the various categories of prices have a direct or indirect effect on all Australians.

The Consumer Price Index (CPI)

The Consumer Price Index is a general indicator of the rate of change in prices paid by wage and salary earner households for the goods and services they buy. In measuring price changes, the CPI aims to measure only pure price changes, that is, price changes excluding the effects of any changes in the quality or quantity of the goods and services.

The CPI is often loosely referred to as a 'cost-of-living index', but this is not strictly correct. A true cost-of-living index would need to take into account the changes in standards of living and the substitutions that consumers make in order to maintain their standard of living in response to changing market conditions, such as disparate price movements.

The CPI was first introduced in 1960 with the index numbers being compiled retrospectively to 1948.

1995–96 in Review

From June quarter 1995 to June quarter 1996, the CPI All Groups for Perth increased from 114.9 index points to 117.9 index points, an increase of 2.6%. The groups contributing most to the overall increase, their respective percentage increases and the sub-groups or expenditure classes which are major contributors to the increase in each group are listed below.

18.1 – CONSUMER PRICE INDEX, ANNUAL CHANGE TO JUNE QTR 1996 PERTH (Base Of Index: Year 1989–90 = 100)

Groups	%	*Contributing Sub-groups*
Tobacco and Alcohol	7.0	Beer; Cigarettes and tobacco
Household Equipment and Operation	2.1	Consumer credit charges; Furniture
Food	1.8	Bread; Milk and cream
Housing	2.6	Mortgage interest charges
Transportation	2.1	Automotive fuel; Vehicle insurance
Health and Personal Care	4.0	Hospital and medical services
Recreation and Education	2.2	Entertainment

18.2 – CONSUMER PRICE INDEX, ALL GROUPS INDEX NUMBERS (Base Of Index: Year 1989–90 = 100)

	Perth		Weighted average of eight capital cities	
Period	Index number	Per cent change from preceding period	Index number	Per cent change from preceding period
1993–94	108.5	2.2	110.4	1.8
1994–95	112.3	3.5	113.9	3.2
1995–96	116.7	3.9	118.7	4.2
Quarter				
1994—				
September	110.1	0.9	111.9	0.6
December	111.0	0.8	112.8	0.8
1995—				
March	113.0	1.8	114.7	1.7
June	114.9	1.7	116.2	1.3
September	115.6	0.6	117.6	1.2
December	116.3	0.6	118.5	0.8
1996—				
March	117.1	0.7	119.0	0.4
June	117.9	0.7	119.8	0.7

Reference: Catalogue No. 6401.0

The annual increase (June quarter 1995 to June quarter 1996) in the CPI All Groups for the eight capital cities was 3.1%. The groups contributing most to the annual increase for the eight capital cities were:

- Tobacco and alcohol (up 9.2%),
- Transportation (up 4.2%),
- Health and personal care (up 3.8%),
- Food (up 3.0%),
- Household equipment and operation (up 2.1%), and
- Housing (up 1.5%).

House Price Indexes

House Price Indexes are compiled quarterly for use in calculating the Mortgage Interest Charges component of the CPI. Separate indexes are constructed for project and established houses.

Producer Price Indexes

Producer Price Indexes measure changes in the prices of goods moving between sectors of the Australian economy. The present range of producer price indexes, which was developed and produced progressively from the 1960s, relate to the building, manufacturing and mining sectors of the economy.

They include the Price Indexes of:

- Materials Used in House Building,
- Materials Used in Other Than House Building,
- Materials Used in Manufacturing Industries,
- Articles Produced by Manufacturing Industry, and
- Materials Used in Coal Mining.

18.3 – SELECTED HOUSING PRICE INDEXES: PERTH
(Base Of Each Index: Year 1989–90 = 100)

	Materials used in House Building		*Project houses*		*Established houses*	
Period	*Index number*	*Per cent change from preceding period*	*Index number*	*Per cent change from preceding period*	*Index number*	*Per cent change from preceding period*
1993–94	109.1	2.1	96.2	3.7	104.7	6.4
1994–95	112.7	3.3	100.0	4.0	109.0	4.1
1995–96	114.7	1.8	101.6	1.6	108.2	-0.7
Quarter						
1994—						
September	111.4	1.1	99.0	0.2	108.0	1.5
December	112.1	0.6	99.6	0.6	109.1	1.0
1995—						
March	113.1	0.9	100.4	0.8	109.1	0.0
June	114.2	1.1	100.8	0.4	109.7	0.5
September	115.0	0.7	102.2	1.4	108.6	-1.0
December	114.9	-0.1	101.6	-0.6	108.3	-0.3
1996—						
March	114.6	-0.3	101.3	-0.3	107.5	-0.7
June	114.6	0.0	101.4	0.1	108.2	0.7

References: Catalogue Nos. 6408.0, 6416.0

Foreign Trade Price Indexes

Foreign Trade Price Indexes measure changes in the prices of goods entering and leaving Australia. They comprise an Import Price Index compiled from September 1981 and an Export Price Index first published in 1901. The Import Price Index replaced the Reserve Bank's Import Price Index that was published from 1928 until September 1982.

Average Retail Prices for Selected Commodities

Average prices of a limited range of commodities are recorded in the Blue Books of Western Australia from the early colonial years and in the Western Australian Year Book (old series) from 1886. Since 1962, average retail prices for a range of selected (mainly food) items have been published quarterly in Average Retail Prices of Selected Items (Catalogue No. 6403.0).

References

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Labour Report No. 58, 1973

Price Index of Materials Used in Building Other than House Building, Six State Capital Cities (6407.0)

Price Index of Materials Used in House Building, Six State Capital Cities (6408.0)

Price Indexes of Articles Produced by Manufacturing Industry, Australia (6412.0)

Price Indexes of Copper Materials, Australia (6410.0)

Price Indexes of Materials Used in Coal Mining, Australia (6415.0)

Price Indexes of Materials Used in Manufacturing Industries, Australia (6411.0)

Producer and Foreign Trade Price Indexes: Concepts, Sources and Methods 1995 (6419.0)

International Trade

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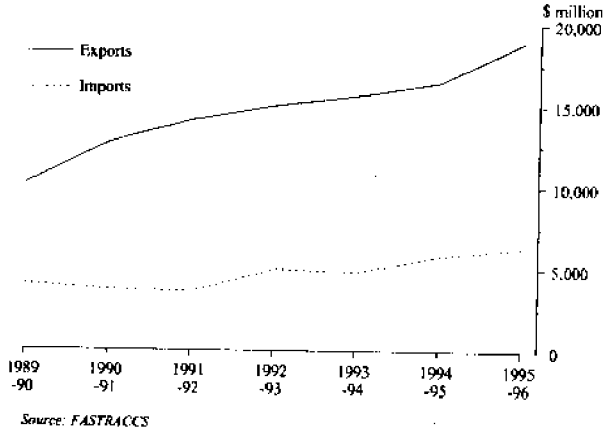
INTERNATIONAL TRADE

Pattern of International Trade

The value of Western Australian exports has increased continuously since 1966.

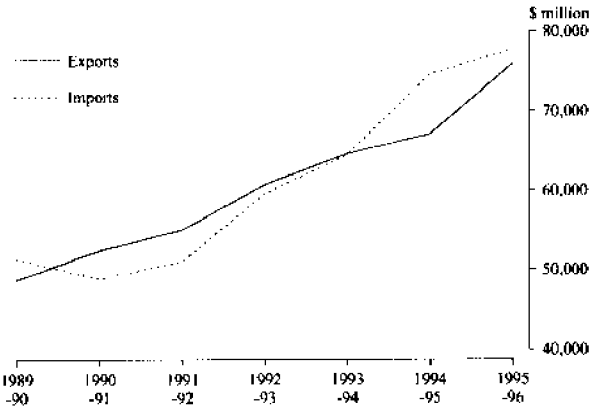
- In 1995–96, exports were more than three times the value of imports. The ratio of exports to imports has increased over the past year from 2.83 (1994–95) to 3.01 (1995–96).
- Western Australia is still heavily reliant on the export of commodities such as gold bullion, iron ore, natural gas, petroleum and petroleum products, wheat and textile fibres.
- The top four major commodity exports from Western Australia have, over the last three financial years, represented a significant proportion of total Western Australian exports to foreign countries. In 1993–94, the proportion was 52.5%; in 1994–95 it was 53.6% and in 1995–96, 50.8%;
- Exports continue to make an increasing contribution to Western Australia's Gross State Product (GSP) at market prices; in 1992–93, exports comprised 35.0% of GSP, in 1993–94, 34.6%, and in 1994–95, 39.2%.

DIAGRAM 19.1 – IMPORTS AND EXPORTS: WESTERN AUSTRALIA



Source: FASTRACCS

DIAGRAM 19.2 – IMPORTS AND EXPORTS: AUSTRALIA



Source: Catalogue no. 5422.0

Western Australia continues to be Australia's major exporting State and its contribution, in percentage terms, to total Australian exports remains high. In 1993–94, Western Australia was ranked first with 24% of total exports. By 1994–95, Western Australia had increased to 24.5% and by 1995–96, had risen to 24.9% of total Australian exports. Diagrams 19.1 and 19.2 show the different trends in export and import performance between Western Australia and Australia.

Exports

Japan continues to be the major export market and is also the second largest import supplier. The bulk of Western Australia's exports are concentrated in a few major markets.

- In 1995–96, the top ten export markets accounted for 74.5% of total exports.
- Western Australia's export markets are heavily concentrated in the Asia region. The ASEAN nations (Singapore, Thailand, Malaysia, Indonesia, the Philippines and Brunei), combined with the major North Asia economies (Japan, Republic of Korea, Hong Kong, China and Taiwan) received 65.0% (or $12,294 million) of total exports in 1995–96. European Union markets such as United Kingdom, Germany, France and Italy also represent significant export markets for Western Australia.

Western Australia's main exports in 1995–96 were:

- gold bullion ($3,342 million or 17.7% of total exports),
- iron ore ($2,846 million or 15.0% of total exports),

- wheat ($1,826 million or 9.6% of total exports),
- petroleum and petroleum products ($1,586 million or 8.4% of total exports),
- natural gas ($1,436 million or 7.6% of total exports), and
- textile fibres ($693 million or 3.7% of total exports).

Imports

The top three import suppliers to Western Australia in 1995–96 were the United States of America, Japan and Singapore. The United States of America is currently the State's main source of imported goods and services. As with exports, the bulk of imports have tended to be sourced from a few major suppliers, the top ten countries representing 71.3% of all imports to Western Australia. APEC members, such as Japan, USA, Singapore, New Zealand, China and Indonesia, represent major importing countries; trade with European Union countries such as the United Kingdom, France and Germany was also significant.

Petroleum and petroleum products (12.2%), road vehicles (12.6%) and machinery specialised for particular industries (8.1%) were, in dollar terms, the largest imports in 1995–96.

The Collection of ABS International Merchandise Trade and Shipping Statistics

Australian Bureau of Statistics (ABS) international merchandise trade and shipping statistics are collected via the following process:

- the Australian Customs Service (ACS) receives documentation submitted by exporters and importers (or their agents), as required by the Customs Act;
- this documentation includes information about the type, quantity and value of goods being imported or exported;
- this information is used by the ACS to assess and collect customs duty and other revenue payable on imported and exported goods and to facilitate the monitoring and control of the physical movement of goods into and out of Australia;
- once the ACS has finalised processing this documentation for its own purposes, the information is passed on to the ABS for statistical processing; and
- after the ABS has checked for errors and made any necessary amendments, the statistics are aggregated according to a number of classifications, then released so they can be accessed by users.

19.1 – OVERSEAS IMPORTS AND EXPORTS, COUNTRY OF ORIGIN/DESTINATION: 1995–96

Origin / destination	*Imports* $'000	*Exports* $'000
Argentina	5 487	40 587
Bahrain	710	15 677
Bangladesh	670	28 304
Belgium-Luxembourg	45 678	143 392
Canada	160 626	325 419
Chile	5 881	36 412
China	159 517	1 398 912
Czech Republic	9 887	8 533
Denmark	17 756	45 146
Fiji	727	34 093
Finland	73 114	213 438
France	252 635	202 704
Germany	295 951	347 726
Greece	1 300	6 314
Hong Kong	38 095	330 582
India	33 612	96 428
Indonesia	156 867	768 172
Iran	2 347	17 782
Israel	19 150	4 106
Italy	157 770	243 316
Japan	859 159	4 814 396
Jordan	8 977	60 802
Korea, Republic of	168 208	2 093 542
Kuwait	51 989	37 349
Malaysia	137 460	436 855
Mexico	4 114	12 409
Netherlands	44 228	303 946
New Zealand	261 593	250 472
Nigeria	25 461	7 831
Norway	16 469	23 267
Pakistan	3 523	54 322
Papua New Guinea	505	26 729
Philippines	15 297	84 126
Poland	2 065	3 204
Qatar	69 649	13 431
Russian Federation	8 915	8 030
Saudi Arabia	120 792	55 326
Singapore	570 099	1 075 873
South Africa	102 921	265 587
Spain	54 383	109 003
Sri Lanka	6 664	7 769
Sweden	70 589	2 998
Switzerland	29 307	453 778
Taiwan	120 299	836 582
Thailand	57 621	429 804
Turkey	2 836	101 856
United Arab Emirates	283 595	213 865
United Kingdom	375 249	953 922
United States of America	1 260 221	1 258 574
Vietnam	6 077	35 500
Other countries, country unknown and re-exports	113 457	496 530
Ships and Aircraft stores	--	79 623
Total overseas trade	**6 289 502**	**18 914 344**

Source: FASTRACCS

19.2 – OVERSEAS EXPORTS – SELECTED MAJOR COMMODITIES (a) 1995–96

Commodity and Destination	$'000
Wheat—	
Total wheat exports	1 825 813
Wool—	
China	117 723
Italy	84 596
France	80 689
Germany	61 737
India	50 281
United States of America	50 051
Taiwan	35 180
Hong Kong	34 424
Japan	34 184
Malaysia	29 391
Netherlands	25 829
Total wool exports	**690 582**
Iron ore—	
Japan	1 261 501
China	573 018
Korea, Republic of	412 511
Taiwan	149 952
United Kingdom	128 938
Germany	102 228
France	93 217
Italy	32 648
Pakistan	25 233
Turkey	19 928
Total iron ore exports	**2 846 258**
Gold bullion—	
Korea, Republic of	1 129 875
Singapore	614 146
Japan	479 077
Switzerland	406 195
United Kingdom	268 631
Thailand	218 960
Malaysia	94 535
Hong Kong	81 603
Turkey	16 409
Germany	11 823
Total gold bullion exports	**3 342 228**
Petroleum and petroleum products—	
Taiwan	320 504
Japan	255 129
Singapore	201 346
New Zealand	159 242
United States of America	154 163
Indonesia	149 398
Korea, Republic of	106 363
Thailand	60 571
China	50 896
Total petroleum and petroleum products exports	**1 585 972**
Natural gas—	
Japan	169 143
Philipines	21 639
China	12 682
France	7 966
Total natural gas exports	**1 436 270**
Fish, crustaceans, molluscs etc—	
Japan	156 110
Taiwan	110 259
Hong Kong	50 164
United States of America	21 369
Singapore	9 401
China	4 472
Malaysia	2 997
Spain	2 109
Total fish, crustaceans molluscs etc exports	**364 214**
Live animals (excluding fish)—	
Jordan	58 511
Indonesia	58 044
United Arab Emirates	45 917
Kuwait	27 533
Egypt	22 588
Oman	17 996
Total live animal exports	**281 410**
Gold coin—	
Germany	46 206
Switzerland	25 204
Japan	18 232
Taiwan	16 697
United States of America	10 085
Hong Kong	8 425
Total gold coin exports	**138 692**
Dyeing, tanning and colouring materials—	
Korea, Republic of	53 980
Japan	40 299
Philippines	25 373
China	24 787
Thailand	21 101
Hong Kong	20 671
Singapore	17 575
Belgium-Luxembourg	14 734
Total dyeing, tanning and colouring materials exports	**303 105**
Transport equipment—	
Germany	49 055
Denmark	39 247
Hong Kong	25 442
French Polynesia	11 509
Italy	10 038
Total transport equipment exports	**172 359**

(a) The sum of the components may not add up to the totals as some countries are not listed in the commodity breakdown.

19.3 – OVERSEAS IMPORTS FROM SELECTED COUNTRIES: 1995–96

Division	Description	Japan	USA	UK	All Countries
		$'000	$'000	$'000	$'000
01	Meat and meat preparations	—	—	1	560
03	Fish, (not marine mammals) crustaceans, molluscs and aquatic invertebrates, and preparations thereof	897	743	210	56 059
04	Cereals and cereal preparations	68	488	1 976	11 233
05	Vegetables and fruit	49	5 868	796	33 207
08	Feeding stuff for animals (excluding unmilled cereals)	—	114	4	3 482
24	Cork and wood	—	2 336	43	13 435
26	Textile fibres and their wastes (not manufactured into yarn or fabric)	52	377	154	3 804
27	Crude fertilisers (excluding those of Divisions 56) and crude minerals (excluding coal, petroleum and precious stones)	2 432	883	133	36 950
28	Metalliferous ores and metal scrap (a)	156	6 073	50	8 184
29	Crude animal and vegetable materials, n.e.s.	3 707	1 048	139	17 972
33	Petroleum, petroleum products and related materials	129	9 985	2 968	769 095
34	Gas, natural and manufactured		4	13	3 303
51	Organic chemicals (a)	4 235	9 465	34 129	105 297
52	Inorganic chemicals (a)	1 470	25 907	1 860	96 510
53	Dyeing, tanning and colouring materials	80	2 440	871	8 238
56	Fertilisers (excl. crude)	245	35 212	6 160	160 213
58	Plastics in non-primary forms (a)	1 792	9 093	3 977	36 603
59	Chemical materials and products, n.e.c.	1 971	26 430	11 072	67 976
62	Rubber manufactures, n.e.s.	96 158	9 468	4 580	180 497
64	Paper, paperboard and articles of paper pulp, of paper or of paperboard (a)	3 018	8 873	2 255	86 899
65	Textile yarn, fabrics, made-up articles n.e.s. and related products (a)	1 668	4 484	2 440	59 660
66	Non-metallic mineral manufactures, n.e.s. (a)	5 903	5 903	6 652	107 399
67	Iron and steel	63 402	12 518	10 882	202 186
68	Non-ferrous metals (a)	250	5 053	1 689	37 088
69	Manufactures of metal, n.e.s. (a)	9 252	29 862	13 595	161 058
71	Power generating machinery and equipment	45 216	150 200	16 811	356 106
72	Machinery specialised for particular industries (a)	73 429	202 747	25 705	509 995
74	General industrial machinery and equipment, n.e.s. and machine parts, n.e.s. (a)	29 230	108 646	25 526	346 008
75	Office machines and automatic data processing equipment	20 489	167 677	5 495	334 513
76	Telecommunications and sound recording and reproducing apparatus and equipment	17 291	9 300	2 092	72 054
77	Electrical machinery, apparatus and appliances, n.e.s. and electrical parts thereof (c)	15 962	39 989	21 368	166 450
78	Road vehicles (incl. air cushion vehicles)	405 982	155 805	25 971	794 403
79	Transport equipment (excl. road vehicles)	366	51 521	71 607	443 775
87	Professional, scientific and controlling instruments and apparatus, n.e.s.	5 301	41 656	12 900	93 580
97	Gold, non-monetary (excl.gold ores and concentrates)	—	1	—	150 250
	Total (b)	**859 152**	**1 260 153**	**375 119**	**6 289 503**

(a) Excludes commodities subject to a confidentiality restriction. These are included in totals.
(b) Includes details not available for publication and divisions shown separately.
(c) Including non-electrical counterparts n.e.s. of electrical household type equipment.
Source: FASTRACCS

19.4 – OVERSEAS EXPORTS TO SELECTED COUNTRIES: 1995–96

Division	Description	Japan	USA	UK	All Countries
		$'000	$'000	$'000	$'000
01	Meat and meat preparations	21 900	8 749	8 133	125 848
03	Fish, (not marine mammals) crustaceans, molluscs and aquatic invertebrates, and preparations thereof	156 485	21 369	46	364 594
04	Cereals and cereal preparations	24 183	4	50	1 874 899
05	Vegetables and fruit	3 317	46	3 271	99 118
08	Feeding stuff for animals (excluding unmilled cereals)	19 545	2 426	—	56 514
24	Cork and wood	85 969	678	4 498	97 885
26	Textile fibres and their wastes (not manufactured into yarn or fabric)	34 642	50 051	16 209	694 470
27	Crude fertilisers (excluding those of Divisions 56) and crude minerals (excluding coal, petroleum and precious stones)	9 576	9 408	430	249 764
28	Metalliferous ores and metal scrap (a)	1 340 180	28 144	129 016	3 218 981
29	Crude animal and vegetable materials, n.e.s.	10 296	1 616	251	43 001
33	Petroleum, petroleum products and related materials	255 129	154 163	1	1 589 504
34	Gas, natural and manufactured	169 143	2	65	1 436 270
51	Organic chemicals (a)	131	7	—	1 434
52	Inorganic chemicals (a)	39 126	16 795	74	139 347
53	Dyeing, tanning and colouring materials	40 299	431	204	303 132
56	Fertilisers (excl. crude)	—	—	37	709
58	Plastics in non-primary forms (a)	995	214	15	7 836
59	Chemical materials and products, n.e.c.	207	56	694	7 536
62	Rubber manufactures, n.e.s.	54	640	207	13 127
64	Paper, paperboard and articles of paper pulp, of paper or of paperboard (a)	2	24	138	13 991
65	Textile yarn, fabrics, made-up articles n.e.s. and related products (a)	23	270	602	13 137
66	Non-metallic mineral manufactures, n.e.s. (a)	33 951	15 110	2 945	130 902
67	Iron and steel	239	942	23	15 729
68	Non-ferrous metals (a)	—	1 083	6	547 924
69	Manufactures of metal, n.e.s. (a)	1 941	6 655	1 072	46 970
71	Power generating machinery and equipment	290	1 314	57	8 714
72	Machinery specialised for particular industries (a)	419	10 396	2 033	95 581
74	General industrial machinery and equipment, n.e.s. and machine parts, n.e.s. (a)	1 571	3 254	887	94 863
75	Office machines and automatic data processing equipment	175	782	821	19 047
76	Telecommunications and sound recording and reproducing apparatus and equipment	33	774	865	40 531
77	Electrical machinery, apparatus and appliances, n.e.s. and electrical parts thereof (c)	90	1 344	544	29 880
78	Road vehicles (incl. air cushion vehicles)	3 242	880	330	22 262
79	Transport equipment (excl. road vehicles)	916	920	391	172 407
87	Professional, scientific and controlling instruments and apparatus, n.e.s.	381	1 121	1 694	21 587
97	Gold, non-monetary (excl.gold ores and concentrates)	479 077	17	268 631	3 342 228
	Total (b)	**4 815 084**	**1 259 021**	**953 997**	**18 914 345**

(a) Excludes commodities subject to a confidentiality restriction. These are included in totals.
(b) Includes details not available for publication and divisions shown separately.
(c) Including non-electrical counterparts n.e.s. of electrical household type equipment.
Source: FASTRACCS

Concepts and Definitions of International Trade Statistics

Merchandise Exports are defined as all goods which subtract from the stock of material resources in Australia as a result of their movement out of the country.

Merchandise Imports are defined as all goods which add to the stock of material resources in Australia as a result of their movement into the country.

References

ABS Publications

International Merchandise Trade Australia (5422.0)

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REGIONAL PROFILE

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Chapter 20

REGIONAL PROFILE

Upper Great Southern Statistical Division

The Region

The Upper Great Southern Statistical Division is located in the South Western Region of Western Australia and covers a land area of 46,459 square kilometres.

This Division comprises the Hotham Statistical Subdivision and the Lakes Subdivision. The Hotham Statistical Subdivision comprises 12 Statistical Local Areas and the Lakes Statistical Subdivision comprises four Statistical Local Areas.

The Division lies south-east of Perth in the southern wheat belt. The Division's economy is based mainly on agriculture.

The eastern part of the Division is wheat and sheep country. There are sheep stud farms around Kondinin, approximately 280 km east of Perth.

Dumbleyung, to the south of Kondinin, is where Sir Donald Campbell established a world water speed record in 1964. Lake Dumbleyung is one of the largest semi-permanent stretches of inland water in Western Australia.

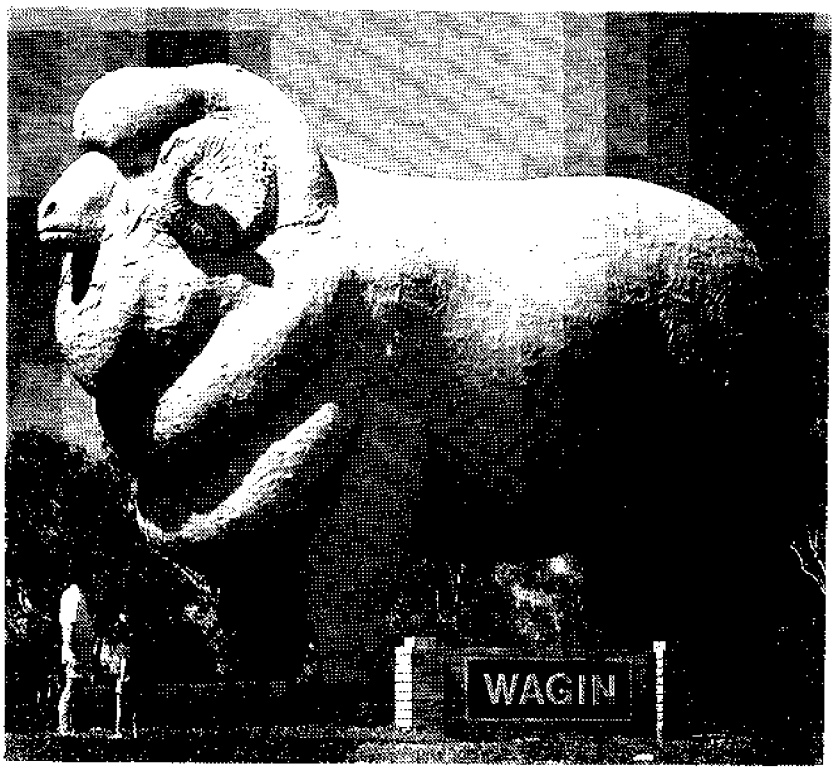
Corrigin, to the east of Kondinin, is the service centre for the surrounding rich farming area. Wickepin, 215 km south-east of Perth, dates back to the 1890s and became famous after the publication of Albert Facey's autobiography '*A Fortunate Life*'.

Narrogin, 190 km south-east of Perth, is a major railway junction and a service centre for the surrounding area, which supports sheep, pigs and cereal farms.

The Dryandra State Forest, to the north-west of the Town of Narrogin, covers 27,000 hectares and is an important area for nature conservation. Many endangered species, such as Western Australia's fauna emblem, the numbat (*Myrmecobius fasciatus*) survive there. Dyrandra is a remnant of the open eucalypt woodlands which covered much of the wheatbelt.

Giant Ram, Wagin

Courtesy: Wagin News



Wagin, 227 km south-east of Perth, is the centre of a thriving Merino Stud industry and proud home to the 'Wagin Woolarama', the State's largest rural show. This show is held in March each year and attracts farmers from all over Australia. The district's success in the merino stud and wool industry is symbolised by the Giant Ram, one of Wagin's major attractions. Another feature is Wagin's historical village – a genuine replica of rural life as it was 100 years ago.

The rich fertile land around Hyden (60 km east of Kondinin) led to the commencement of wheat production in this area in 1927. Wave Rock, a granite cliff which rises 15 metres above the ground like a giant wave about to break, is found just 4 km east of Hyden on a nature reserve of some 160ha. The formation, originally vertical, has been sculptured by weathering and water erosion and coloured by chemicals over 2,700 million years to take on its wave-like character.

Population

Of the 21,248 persons who lived in the Upper Great Southern region, the majority (72%) lived outside the urban centres. Of the 11,422 persons who lived in urban centres, approximately 40% lived in Narrogin (4,638) and approximately 10% lived in Wagin (1,293).

In the Upper Great Southern Statistical Division:—

- children aged 0–14 years represented 28% of the population;

- the proportion of aged persons (65 years and over) was 9%;
- 13,540 persons were aged 15–64 years;
- 6% (547) of all females were aged 15–19 years, while 7% of all males were in that age group;
- 51% (3,298) of persons aged 15–34 years had never married;
- overall 64% of the population were married, compared to 56% of the population of Western Australia;
- the majority of persons (88%) were born in Australia; for Western Australia, by comparison, 69% of the population were Australian born;
- of the 2,583 persons in the region who were born overseas, 44% were born in the United Kingdom or Ireland.

20.1 – POPULATION: AGE BY SEX: CENSUS 1991

	Males	*Females*	*Persons*	*%*
0–4	1 014	963	1 977	9.3
5–9	1 089	1 048	2 137	10.1
10–14	900	841	1 741	8.2
15–19	815	547	1 362	6.4
20–24	748	664	1 412	6.6
25–29	895	820	1 715	8.1
30–34	1 008	943	1 951	9.2
35–39	991	827	1 818	8.6
40–44	886	713	1 599	7.5
45–49	667	513	1 180	5.6
50–54	547	477	1 024	4.8
55–59	436	355	791	3.7
60–64	400	330	730	3.4
65 and over	863	972	1 835	8.6
Total	**11 244**	**10 004**	**21 248**	**100**

Although the population of the Upper Great Southern Statistical Division increased slightly (1.3%) between the 1986 Census and the 1991 Census, the population of the Lakes Statistical Subdivision decreased by 6.9%.

The increase of 531 persons in the Shire of Boddington was the main contributor to the 3.6% increase in the population of the Hotham Statistical Subdivision. Other local government areas to have population increases between the 1986 Census and the 1991 Census were the Town of Narrogin (8.7%), Shire of Narrogin (22.3%) and the Shire of Cuballing (15.9%).

20.2 – POPULATION OF STATISTICAL LOCAL AREAS

	1986 Census	1991 Census	% change
Hotham Statistical Subdivision—			
Boddington (S)	885	1 416	60.0
Brookton (S)	1 096	1 018	-7.1
Cuballing (S)	623	722	15.9
Dumbleyung (S)	961	856	-10.9
Narrogin (T)	4 266	4 638	8.7
Narrogin (S)	707	865	22.3
Pingelly (S)	1 247	1 171	-6.1
Wagin (S)	2 095	1 940	-7.3
Wandering (S)	430	414	3.7
West Arthur (S)	1 067	976	-8.5
Wickepin (S)	921	923	0.2
Williams (S)	1 090	1 008	7.5
Lakes Statistical Subdivision—			
Corrigin (S)	1 397	1 384	-0.9
Kondinin (S)	1 199	1 086	9.4
Kulin (S)	1 117	1 062	-4.9
Lake Grace (S)	2 020	1 804	-10.7
Total Upper Great Southern Statistical Division	**21 121**	**21 283**	1.3

(S) Shire
(T) Town

Of the 754 Aboriginal and Torres Strait Islander persons in the Division:

- 460 lived outside the urban centres,
- 42.8% were under the age of 15 years, and
- the proportion of aged persons (65 years and over) was 2.7%.

Tourist Accommodation

In the Upper Great Southern Statistical Division there were 20 hotels, motels and guest houses, and 17 caravan parks, providing accommodation for tourists. These establishments provided employment for approximately 156 persons.

Increasingly, a range of rural properties offer tourists the opportunity to experience life on the land with farm stay accommodation.

20.3 – TOURIST ACCOMMODATION: JUNE QTR 1996

		Upper Great Southern	Western Australia
HOTELS, MOTELS AND GUEST HOUSES			
Establishments	No.	20	461
Guest rooms	No.	320	17 899
Bed spaces	No.	709	44 238
Employment (persons)	No.	128	10 565
Room nights occupied	No.	8 038	867 028
Room occupancy rate	%	27.6	53.3
Guest nights	No.	12 024	1 343 579
Bed occupancy rate	%	18.6	33.4
Guest arrivals	No.	8 211	555 568
Average length of stay	days	1.5	2.4
Takings from accommodation	$'000	359	74 982
CARAVAN PARKS			
Establishments	No.	17	317
Capacity	No.	508	29 952
Sites occupied by long-term guests	No.	47	1 455
Other sites permanently reserved	No.	1	2 389
Employment (persons)	No.	28	1 230
Site nights occupied	No.	8 999	1 075 155
Site occupancy rates	%	19.5	39.4
Guest arrivals	No.	5 280	311 557
Takings from accommodation	$'000	84	13 209

Reference: Cat 8635.5

Labour Force

Of the 15,399 persons in the region who were aged 15 years and over, 10,798 were in the labour force. Of these, 62.2% (6,712) were males.

20.4 – LABOUR FORCE: 1991 CENSUS (a)

	Males	Females	Persons
Employed—			
Wage and salary earner	3 315	2 245	5 560
Self employed	2 041	1 014	3 055
Employer	697	354	1 051
Unpaid helper	134	188	322
Total	6 181	3 804	9 985
Unemployed	531	281	812
Total Labour Force	6 712	4 085	10 797
Not in Labour Force	1 432	2 986	4 418
Total (a)	**8 217**	**7 182**	**15 399**
Participation rate	81.6	53.0	70.1

(a) Population aged 15 years and over. Includes not stated

In the Upper Great Southern Statistical Division:

- of the 9,985 employed persons, 41% were self employed or employers; for Western Australia, 19% of employed persons were self employed or employers;
- of the 3,804 employed females, 59% were wage and salary earners;
- 2,268 persons worked part-time, representing 23% of employed persons;
- two-thirds of part-time workers were female;
- of the 812 unemployed persons, 39% were aged 15–19 years and 14% were aged 45 years and over.
- the labour force participation rate of 70.1% for the Division was much higher than the participation rate for the Western Australia at 62.7%.

Industry

The major industry in the Upper Great Southern Statistical Division was Agriculture followed by Community services and Wholesale and retail trade.

Of the 9,985 employed persons, 42.7% worked in agriculture or provided services to the agricultural industry.

20.5 – EMPLOYED PERSONS BY INDUSTRY: CENSUS 1991

Industry	*1986 Census*	*1991 Census*
Agriculture, forestry and fishing	4 894	4 290
Mining	134	422
Manufacturing	235	212
Electricity, gas and water supply	109	102
Construction	388	315
Wholesale, retail trade	1 207	1 133
Transport and storage	391	243
Communication services	142	80
Finance, property and business services	268	346
Public administration and defence	313	395
Community services	1 065	1 374
Recreational, personal and other services	347	327
Total all industries (a)	**9 736**	**9 970**

(a) Includes not stated

Occupation

The most common occupation for employed persons in the Upper Great Southern Statistical Division was Manager/Administrator. This occupation represented 36.6% of the employed persons in the area. This compares with 12.1% of the employed persons in Western Australia whose occupation was Manager/Administrator. Of the 3,639 Manager/Administrators, over half (1,962) were in the 35–54 year age group.

Tradespersons and Labourers/Related Workers accounted for a quarter of the employed persons in the area while Clerks and Sales/Personal services accounted for 14.8%. For Western Australia, Clerks and Sales/Personal services accounted for 28.3% of employed persons.

20.6 – OCCUPATION: CENSUS 1991

	Age					
Occupation	*15–19*	*20–34*	*35–54*	*55+*	*Total*	*%*
Managers/ Administrators	27	945	1 962	705	3 639	36.6
Professionals	3	311	267	43	624	6.3
Para-Professionals	9	188	181	24	402	4.0
Tradespersons	88	568	478	68	1 202	12.1
Clerks	24	301	288	52	665	6.7
Sales/Personal Services	120	315	320	54	809	8.1
Plant/Machine Operator	18	285	336	76	715	7.2
Labourers/Related Workers	160	543	433	113	1 249	12.5
Total (a)	**485**	**3 646**	**4 580**	**1 263**	**9 954**	**100.0**

(a) Includes not stated, inadequately described and not elsewhere classified.

Agriculture

While the total area of agricultural holdings (3,364,381 hectares) of the Upper Great Southern Statistical Division constituted 3% of the State's agricultural land in use in 1994–95, this Division's value of production was one fifth of the State's total.

Area of Holdings

Two-thirds of all farms in the region were between 500 and 2,499 hectares in size with the average area of holdings being 1,810 hectares.

Most (94%) of the farms in the Upper Great Southern Division were involved in grain and/or sheep farming. Of these 1,747 agricultural establishments, 63% were mixed grain–sheep farms.

Value of Agricultural Production

The total value of agricultural production for the 1994–95 season was $648.5m, representing 17% of Western Australia's total. Crops accounted for 62% and livestock products (mainly wool) accounted for 28% of total value of agricultural production in the Division.

20.7 – VALUE OF AGRICULTURAL PRODUCTION: 1994–95

	Upper Great Southern	Western Australia	
	$'000	$'000	%
Pastures and Grasses	3 132	82 959	3.7
Crops	403 113	2 183 136	18.5
Livestock Slaughterings	58 663	624 170	9.4
Livestock Products	183 548	971 105	18 9
Total	**648 457**	**3 861 369**	**16.8**

Crops

In 1994–95, a third of the total area of agricultural holdings was under crops (excluding pastures and grasses). The main grain crop was wheat, followed by lupins, barley and oats.

20.8 – CROPS FOR GRAIN: AREA AND PRODUCTION: 1994–95

		Production		
	Area	Total	Per hectare	Gross Value
	'000 ha	'000t	tonnes	$'000
Wheat	717.8	1 202.0	1.7	288 991
White or Yellow Lupins	160.5	136.7	0.9	24 689
Barley	115.5	203.3	1.8	39 823
Oats	103.9	184.0	1.8	25 436
Total	**1 097.7**	**1 726.0**	**n.a.**	**378 939**

Livestock

Although the numbers of pigs and meat cattle were increasing in the area, sheep and lambs accounted for the bulk of the livestock numbers. The Upper Great Southern accounted for 22.6% of the sheep and lamb numbers in Western Australia.

20.9 – LIVESTOCK NUMBERS: 31 MARCH 1995

	Upper Great Southern	Western Australia	%
	'000	'000	
Sheep and Lambs	6 826.6	30 217.8	22.6
Pigs	67.0	316.4	21.2
Meat Cattle	41.1	1 773.1	2.3

Western Australia's Indigenous People

Chapter 21

WESTERN AUSTRALIA'S INDIGENOUS PEOPLE

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Chapter 21

WESTERN AUSTRALIA'S INDIGENOUS PEOPLE

The Australian Bureau of Statistics conducted the first nation-wide survey of Aboriginal and Torres Strait Islander (Indigenous) people during April to July 1994. The National Aboriginal and Torres Strait Islander Survey (NATSIS) was conducted as part of the Government's response to the Royal Commission into Aboriginal Deaths in Custody. It was the paucity of statistical information about the Indigenous populations that led to Recommendation 49;

> 'That proposals for a special national survey covering a range of social, demographic, health and economic characteristics of the Aboriginal population with full Aboriginal participation at all levels be supported.....'

In September 1996 a series of State and Territory publications based on the 1994 Survey was released. The following article is based mainly on data from *1994 National Aboriginal and Torres Strait Islander Survey: Western Australia* (4190.5) and figures quoted relate to the Indigenous population of Western Australia unless otherwise stated.

21.1 – PROJECTIONS OF INDIGENOUS POPULATION, 30 JUNE 1994

	Western Australia			*Australia*
Age group	*Males*	*Females*	*Persons*	*Persons*
0–9	6 969	6 555	13 523	84 070
10–19	5 217	5 037	10 254	65 456
20–29	4 676	4 492	9 167	59 382
30–39	3 156	3 225	6 380	42 322
40–49	1 789	1 946	3 735	25 593
50–59	1 013	1 053	2 066	13 942
60–69	615	680	1 297	7 987
70 and above	363	466	827	4 509
Total	**23 798**	**23 453**	**47 251**	**303 261**

Source: National Aboriginal and Torres Strait Islander Survey 1994, (4190.0)

Western Australia's Indigenous People

Population

Based on experimental estimates, the Indigenous population of Western Australia was 47,251 persons as at 30 June 1994 and made up 16% of the total Australian Indigenous population. The Aboriginal and Torres Strait Islander population is much younger than the Western Australian population as a whole. In June 1994, just over half were under 20 years of age and 83% were under the age of 40 years compared with 30% and 62% respectively for the total Western Australian population.

Families

There were an estimated 12,200 Indigenous families in Western Australia, being families in which one or more members identified as being of Aboriginal or Torres Strait Islander origin. In 74% of these families all members were of Indigenous origin. Couples with children made up over half (54%) of all Indigenous families; 30% were single parent families and 14% comprised couples without children.

Separation from Families

Nine per cent of Indigenous people reported being taken away from their natural families as children by a mission, the government or welfare. The proportion rose to 16% of the 25–44 year age group and 18% of those aged 45 years and over.

Culture

The survey results indicate a high level of cultural identity exists among Indigenous people in Western Australia. Information on participation in cultural activities, use of Indigenous languages, identification with homelands and clan, tribal and language groups was collected in the survey to give an indication of the level of cultural activity and maintenance.

Cultural Attendance

Of those aged 13 years and over, 81% had attended an indigenous cultural activity in the past 12 months. Of those who attended cultural activities, 71% had attended funerals, 48% festivals and carnivals and 18% ceremonies.

Of the population aged 13 years and over, 38% stated that they had a place to meet for cultural activities. The proportion varied on a regional basis; 62% of those living in rural areas had a place to meet compared with 21% of those living in Perth (Perth Statistical Division) and 31% living in other urban centres.

Cultural Identity and Homelands

Three quarters of the population recognised an area as their homelands and 64% identified with a clan, tribal or language group. Just over 27% of Indigenous people lived on their recognised homelands at the time of the survey. The proportion was higher in rural areas, just over half (51%) living on their homelands compared with 8% in Perth and 23% in other urban centres.

Use of Language

Of persons aged five years or older, one in five spoke an Indigenous language. In the ATSIC (Aboriginal and Torres Strait Islander Commission) region of Warburton the proportion rose to 82%. Overall, one in ten people surveyed spoke an Indigenous language as their main language and 16% had difficulty with English.

21.2 – IDENTIFYING WITH CULTURE

ATSIC Regions (a)	Persons aged 13 years and over					Persons aged 5 years and over	
	Identifies with a clan	Sees elders as being important	Recognises homelands	Attended cultural activities	Total	Speaks an Indigenous language	Total
	%	%	%	%	'000	%	'000
Perth	59.9	84.1	71.3	65.2	8.5	*3.8	11.1
Broome	80.3	91.3	84.6	93.8	2.3	32.8	3.1
Kununurra	95.2	92.8	95.0	96.3	2.9	39.9	3.7
Warburton	84.5	94.1	90.3	92.8	1.8	81.9	2.4
Narrogin	50.2	82.7	85.6	78.0	3.6	4.5	5.3
South Hedland	50.9	85.0	63.5	72.8	3.1	10.2	4.2
Derby	84.7	89.5	87.9	85.7	3.0	48.1	3.8
Kalgoorlie	54.9	82.4	69.1	81.9	1.7	20.2	2.4
Geraldton	33.9	83.4	45.5	94.2	3.2	10.5	4.2
Western Australia	**63.7**	**86.3**	**75.4**	**80.7**	**30.2**	**20.9**	**40.1**

(a) Refers to Aboriginal and Torres Strait Islander Commission regional councils in Western Australia.

Source: National Aboriginal and Torres Strait Islander Survey, Western Australia, 1994 (4190.5)

Health

The survey collected data on the health of Indigenous people. Questions on health ranged from stated perceptions and attitudes to reported conditions and actions and actual measurements.

Recent Illness

Overall, 38% of people surveyed reported experiencing an illness in the two weeks prior to the survey. The proportion rose with age: 65% of persons aged 45 and over reported experiencing a recent illness compared with 34% of those aged 44 years and younger. Diseases of the respiratory system were the most commonly reported recent illness for those aged under 45 years. For those aged 45 years or more, diseases of the circulatory system were most frequently reported.

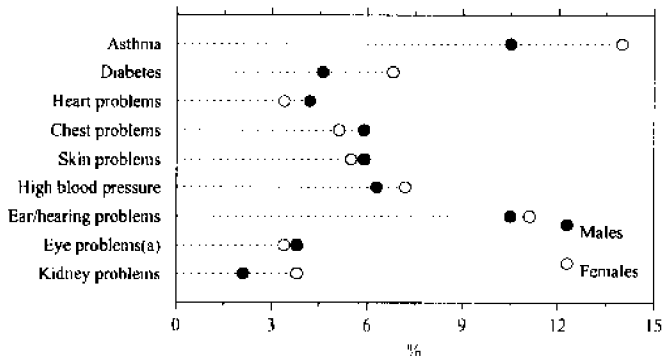
Health Actions

An estimated 42% of persons surveyed took a health related action in the two weeks prior to the survey. The most common actions taken by these persons were used medication (70%) and consulted doctor (45%).

Health Conditions

The most commonly stated current health conditions were asthma and ear or hearing problems, reported by 12% and 11% of the population respectively. The most frequently reported condition for children (persons aged under 15 years) was asthma and for persons aged 15 to 44 years it was ear or hearing problems. Of persons aged 45 years or older, one-third reported high blood pressure and 30% were diabetics.

DIAGRAM 21.1 – PROPORTION OF MALES AND FEMALES WITH A SPECIFIED CURRENT CONDITION BY TYPE OF CONDITION



Source: National Aboriginal and Torres Strait Islander Survey, Western Australia, 1994 (4109.5)

Health Risk Factors

Persons aged 13 years and over were surveyed on cigarette and alcohol consumption. Of those surveyed almost one half (48%) smoked cigarettes. A slightly higher proportion of males (51%) smoked than females (45%). Of those aged 15 to 44 years, 54% stated that they smoked cigarettes compared with 38% of persons aged 45 years and over.

Information on the period since last drank alcohol can be used as an indicator of the frequency of individual consumption. Although 39% of males and 30% of females aged 13 years and over said that they had consumed alcohol in the previous week, a large proportion of people reported that they had never drunk alcohol, 21% of males and 33% of females.

Health Perceptions

When asked what they thought were the main health problems for Aboriginal and Torres Strait Islander people in their area, alcohol was reported as a problem by 75% of those aged 13 years and over. Drugs (38%) was the next most commonly reported health problem followed by diabetes (30%).

When asked specifically about substance problems, most people (84%) stated that alcohol was a common problem in their area. Marijuana (64%) and petrol sniffing (29%) were the next most often stated problems.

Housing

The following information is taken from *Housing Characteristics and Conditions, NATSIS, 1994* (4187.0). At the time of the survey there were an estimated 12,300 Indigenous private households in Western Australia containing 97% of the Indigenous population. A household consists of a person living alone or two or more persons who live and eat together in private residential accommodation. The NATSIS defined a household as Indigenous if one or more members of the household identified as being of Aboriginal and/or Torres Strait Islander origin. In 71% of households all members were of Indigenous origin. Over three quarters (79%) of Indigenous households in private dwellings occupied separate houses.

The majority (73%) of Indigenous households in Western Australia were renting their dwellings. This figure was higher than that for all Australian Indigenous households (69%) and considerably higher than that for non-Indigenous Australian households (27%). In Western Australia, 62% of Indigenous renter households rented through the State housing authority (Homeswest).

One in four Indigenous households stated that their dwelling did not meet the needs of the household. Of these households, the most common problems given were *needs repair* (66%), *not enough bedrooms* (46%) and *not enough living area* (40%).

21.3 – HOUSEHOLDS IN PRIVATE DWELLINGS

Selected characteristics	Indigenous				Non-Indigenous
	Western Australia		Australia		Australia
	No.	%	No.	%	%
Type of Private Dwelling					
Separate House	9.7	78.7	72.7	84.2	79.4
Other dwelling /not stated	2.6	21.3	13.7	15.8	20.6
Total	**12.3**	**100.0**	**86.4**	**100.0**	**100.0**
Nature of occupancy					
Renters	9.0	73.0	59.6	69.0	27.0
Purchasers	1.6	12.6	10.8	12.4	28.4
Owners	0.9	7.1	10.8	12.5	42.3
Other/not stated	0.9	7.3	5.2	6.0	2.2
Total	**12.3**	**100.0**	**86.4**	**100.0**	**100.0**
Household composition					
Indigenous members only	8.8	71.0	50.6	58.6	n.a.
Includes non-Indigenous members	3.6	29.0	35.8	41.4	n.a.
Total	**12.3**	**100.0**	**86.4**	**100.0**	..

Source: Housing Characteristics and Condition, National Aboriginal and Torres Strait Islander Survey, 1994 (4187.0)

Education

Almost four-fifths (79%) of persons aged 5 to 18 years attended school in Western Australia. School participation rates declined significantly with age. Although most 13 and 14 year olds attended school (99%), participation rates fell markedly for older students, from 71% of 15 year olds to only 13% of 17 year olds.

Taught about Culture

Half of all students were taught about Aboriginal or Torres Strait Islander culture at school and 19% were taught Indigenous languages. About 44% of students were taught by an Indigenous teacher or education worker, or had an Indigenous community member attend school regularly to give lessons.

Attitudes to Children's Schooling

Persons with children attending primary and secondary school were asked for their attitudes toward their children's schooling. Of persons with children attending school:

- 90% were happy with the education their children were receiving;
- 84% felt that they were made to feel welcome at their children's school;
- 40% were involved in decision making at their children's school;
- 25% would have preferred to send their children to an Aboriginal community controlled school.

Post-school Qualifications

Almost 13% of persons aged 15 years and over who had left school had post-school qualifications, 14% of males and 11% of females. Persons with these qualifications were more likely to be employed and to have higher incomes. Over half (56%) were employed compared with 35% of person without qualifications. Some 28% earned more than $25,000 per annum compared with 10% of people without post-school qualifications.

At the time of the survey there were 1,700 Indigenous persons aged 15 years and over studying for a qualification. Females (53%) made up a slightly higher proportion of those studying . Almost half of persons (48%) studying for post-school qualifications attended Technical and Further Education (TAFE) colleges.

Employment and Income

At the time of the survey, the total number of Indigenous persons aged 15 years and over in the labour force (employed and unemployed) was estimated at 15,900 in Western Australia, giving a labour force participation rate of 58%. Women had a much lower participation rate, 48% compared with 69% for men.

Employment

It was estimated that 10,100 Indigenous people were employed in Western Australia at the time of the survey. Of these, 42% worked for a public sector organisation while 57% worked in the private sector. Of those who worked in the private sector, 31% were employed by an Aboriginal or Torres Strait Islander community organisation. In rural areas this proportion rose to almost half (49%).

Community Development Employment Projects

The Community Development Employment Projects (CDEP) scheme operates through grants from ATSIC to Indigenous community organisations to enable individuals to undertake community managed activities in return for wages.

In Western Australia, an estimated 39% of employed indigenous persons were working in CDEP schemes at the time of the survey. In rural areas, 71% of employed persons were CDEP scheme workers compared with 30% in urban centres. The ATSIC regions with the highest proportion of employed persons in the CDEP scheme were Kununurra (87%) and Derby (76%).

21.4 – LABOUR FORCE STATUS (a)

ATSIC Regions	In the labour force				Not in the labour force		Participation rate
	Employed	Unemployed	Unemployed 12 months or more	Total		Total	
	%	%	%	'000	%	'000	%
Perth	48.6	51.4	36.1	4.7	40.1	7.8	59.9
Broome	69.8	30.2	11.5	1.4	36.8	2.2	63.2
Kununurra	91.7	8.3	3.0	2.1	23.5	2.8	76.5
Warburton	69.8	30.2	*4.0	0.9	50.4	1.8	49.6
Narrogin	56.8	43.2	24.7	1.5	54.3	3.2	45.7
South Hedland	65.9	34.1	9.4	1.7	41.0	3.0	59.0
Derby	85.2	14.8	8.1	1.6	42.6	2.8	57.4
Kalgoorlie	34.7	65.3	35.8	0.9	46.3	1.6	53.7
Geraldton	52.1	47.9	18.5	1.8	42.6	3.2	57.4
Western Australia	**63.4**	**36.6**	**19.0**	**15.9**	**42.0**	**27.5**	**58.0**

(a) Persons aged 15 years and over
Source: National Aboriginal and Torres Strait Islander Survey, Western Australia, 1994 (4190.5)

Unemployment

The unemployment rate for indigenous Western Australia was 37%, with little difference between males (37%) and females (36%). The unemployment rate was higher for those living in Perth (51%) and other urban centres (41%) compared with rural areas (18%). Of all age groups, 20 to 24 year olds had the highest unemployment rate (53%). Of this age group, females were more likely to be unemployed, 59% compared with 49% of males.

Voluntary Work

Around 5,900 indigenous persons, or 21% of person aged 15 years and over, were engaged in voluntary work. Nearly half the volunteers (47%) did six or more hours of voluntary work per week.

Income

The mean annual income of Indigenous persons aged 15 years and over was $13,253. The mean annual income was higher for males, $14,664 compared with $11,979 for females. Two-thirds of those surveyed received an annual personal income of $12,000 or less and 9% received more than $25,000.

Government payments were the main source of income for 57% of persons, 66% of females and 47% of males. For almost one third (33%) the main source of income was earned income and 9% had no income. The main government payments received were family payments (45%), Newstart or Jobsearch (27%) and sole parent benefit (14%). The majority of recipients of sole parent benefits were female (96%).

Law and Justice

Persons aged 13 years and over were surveyed on use of legal services, arrests, personal safety and attitudes to and relations with police.

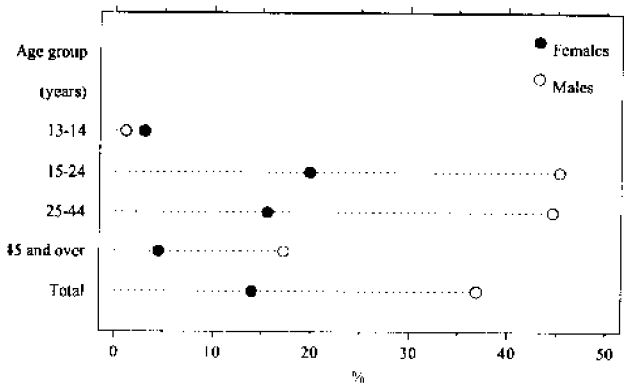
Use of Legal Services

Over 17% of persons surveyed had needed legal services in the 12 months prior to the survey. Males (21%) were much more likely than females (13%) to have required a legal service. The Aboriginal Legal Service was the most commonly used service with 13% of persons having used its services in the previous 12 months.

Persons Arrested

One in four persons stated that they had been arrested in the last 5 years. Males (37%) were over two and half times more likely to have been arrested than females (14%). The age groups with the highest proportion arrested were 15 to 24 year olds (45% males, 20% females) and 25 to 44 year olds (45% males, 16% females).

DIAGRAM 21.2 – PERSONS AGED 13 YEARS AND OVER BY WHETHER ARRESTED IN LAST FIVE YEARS



Source: National Aboriginal and Torres Strait Islander Survey, Western Australia, 1994 (4190.5)

Victims of Crime

Fourteen per cent of persons surveyed stated that they had been physically attacked or verbally threatened in the previous 12 months; 6% were verbally threatened; 4% were physically attacked and 3% were both verbally attacked and physically threatened. Of those who were physically attacked, 56% did not report the incident to the police.

Perceptions of Crime in Local Area

Family violence was seen as a common problem in the local area by 55% of persons; 18% did not see it as a problem and 27% did not know or did not state whether it was a problem. Those living in other urban centres were more likely to state family violence as a common problem, 70% of female and 61% of males compared with 38% and 41% respectively in Perth.

Relations with Police

One in ten persons stated that they had been hassled by the police in the previous 12 months. Males (14%) were more likely to state that they had been hassled than females (6%). Three per cent of persons stated that they had been physically assaulted by the police in the previous 12 months.

One in five persons stated that Aboriginal and Torres Strait Islander people got on better now with police compared with five years ago; 36% said relations were about the same and 22% said relations were worse.

When asked whether they thought police did a good job, 34% said that the police did a good job in dealing with crime and with violence. About one quarter (26%) of persons felt that the police did a good job when dealing with family violence.

References

ABS Publications

Housing Characteristics and Conditions: National Aboriginal and Torres Strait Islander Survey, 1994 (4187.0)

National Aboriginal and Torres Strait Islander Survey, 1994 (4190.0)

Health of Indigenous Australians: National Aboriginal and Torres Strait Islander Survey, 1994 (4195.0)

National Aboriginal and Torres Strait Islander Survey: Employment Outcomes for Indigenous Australians, 1994 (4199.0)

National Aboriginal and Torres Strait Islander Survey: Western Australia, 1994 (4190.5)

Historical Statistics

Chapter 22

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Chapter 22

HISTORICAL STATISTICS

In the following pages, a historical summary of some of the more important statistics relating to Western Australia is shown. This is intended to present a general picture of the development of the State. Naturally, the range of statistics available in the early years of the colony is limited.

It is not always possible to achieve perfect comparability over long periods of time because of changes in definitions, scope of statistical collections, etc. While major breaks in series are shown, minor changes are not shown and the statistics should be interpreted with this in mind.

22.1 – ESTIMATED POPULATION, NATURAL INCREASE AND MIGRATION (a)

Year	Population at 31 December(b) Males	Females	Persons	Population Increase: Recorded natural increase (c)	Estimated net migration (d)	Total increase (e)	(f)	Mean population Year ended 30 Jun	31 Dec	Population of Perth Statistical Division (g)
	('000)	('000)	('000)	('000)	('000)	('000)	%	('000)	('000)	('000)
1829	0.8	0.2	1.0	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1830	0.9	0.3	1.2	n.a.	n.a.	0.2	16.9	n.a.	n.a.	n.a.
1840	1.4	0.9	2.3	0.0	0.1	0.2	7.3	n.a.	n.a.	n.a.
1850	3.6	2.3	5.9	0.1	1.1	1.2	26.7	n.a.	n.a.	n.a.
1860	9.6	5.7	15.3	0.4	0.1	0.5	3.4	n.a.	15.1	n.a.
1870	15.5	9.6	25.1	0.5	0.0	0.5	2.0	n.a.	24.9	n.a.
1880	17.0	12.6	29.6	0.6	-0.1	0.4	1.5	n.a.	29.4	n.a.
1890	28.9	19.6	48.5	1.0	1.8	2.8	6.2	n.a.	47.1	20.0
1900	110.1	69.9	180.0	3.2	6.5	9.7	5.7	n.a.	175.1	73.0
1910	158.0	118.9	276.8	4.8	6.3	11.2	4.2	266.7	271.0	115.7
1920	176.9	154.4	331.3	4.8	1.3	3.5	1.1	327.2	330.0	167.0
1930	232.9	198.7	431.6	5.4	-0.5	5.0	1.2	425.8	429.1	235.1
1940	248.7	225.3	474.1	4.6	-2.9	1.7	0.4	472.1	473.4	255.5
1950	294.8	277.9	572.6	9.2	19.3	28.5	5.2	545.1	557.9	351.7
1960	372.7	358.4	731.0	11.2	1.1	12.3	1.7	717.3	722.9	470.3
1970	510.2	493.9	1 014.1	14.1	23.4	37.4	3.8	975.1	944.2	689.6
1971	547.6	522.8	1 070.3	16.4	16.4	33.0	3.3	1 013.5	1 052.8	719.1
1972	558.0	534.6	1 092.6	14.8	7.9	22.3	2.1	1 069.0	1 081.6	743.6
1973	568.5	545.5	1 114.0	12.7	8.9	21.4	2.0	1 091.8	1 101.9	762.0
1974	584.6	561.4	1 146.0	12.5	19.7	32.0	2.9	1 113.7	1 127.9	785.8
1975	594.5	572.9	1 167.4	12.4	9.4	21.4	1.9	1 142.8	1 155.5	810.5
1976	605.9	585.7	1 191.7	13.0	10.9	24.3	2.1	1 166.9	1 178.9	832.8
1977	618.2	599.0	1 217.2	12.8	11.4	25.5	2.1	1 191.6	1 204.5	851.8
1978	627.2	609.2	1 236.4	12.9	5.0	19.2	1.6	1 217.1	1 227.9	869.0
1979	636.4	620.7	1 257.1	12.5	6.8	20.7	1.7	1 237.1	1 246.8	882.9
1980	648.9	634.6	1 283.5	12.5	12.6	26.4	2.1	1 257.2	1 269.3	899.4
1981	667.4	652.8	1 320.2	13.9	19.9	36.7	2.9	1 284.0	1 301.2	922.0
1982	684.8	670.2	1 355.0	14.1	17.6	34.8	2.6	1 320.3	1 338.7	952.4
1983	697.6	683.4	1 381.0	14.7	8.1	26.0	1.9	1 354.8	1 368.5	976.8
1984	708.1	695.0	1 403.0	13.1	5.6	22.0	1.6	1 380.6	1 391.8	995.6
1985	725.0	711.9	1 436.9	14.3	16.3	33.9	2.4	1 404.1	1 419.0	1 018.2
1986	745.2	732.2	1 477.4	14.9	24.2	40.5	2.8	1 437.5	1 457.9	1 050.1
1987	763.2	750.1	1 513.4	14.5	22.8	36.0	2.4	1 477.6	1 496.0	1 079.6
1988	785.8	773.1	1 558.9	15.6	31.3	45.6	3.0	1 515.1	1 536.4	1 110.5
1989	803.9	792.3	1 596.2	15.5	22.9	37.3	2.4	1 558.5	1 578.6	1 147.4
1990	817.5	806.9	1 624.4	15.9	13.4	28.2	1.8	1 596.7	1 612.5	1 175.4
1991	827.9	818.9	1 646.9	15.8	7.9	22.5	1.4	1 625.2	1 636.6	1 188.8
1992 r	837.7	829.1	1 666.7	14.8	5.0	19.9	1.2	1 647.5	1 657.9	1 205.5
1993 r	847.9	839.5	1 687.4	14.5	6.2	20.7	1.2	1 667.4	1 677.1	1 221.2
1994 p	861.1	853.2	1 714.3	14.5	12.4	26.9	1.6	1 688.5	1 702.0	1 238.8
1995 p	876.9	869.5	1 746.4	14.6	17.5	32.0	1.9	1 716.1	1 731.2	1 262.2

(a) Figures for 1960 and earlier exclude the indigenous population.
(b) Population figures for 1971 and later refer to the estimated resident population. Estimates are based on final Census results.
(c) Excess of births registered over deaths registered, including deaths of defence personnel, whether in Australia or overseas, between September 1939 and June 1947. Figures prior to 1972 are on a State of registration basis; those for 1972 and later are on the basis of State of usual residence.
(d) Interstate and overseas.
(e) For the years 1972 to 1991 differences between the sum of natural increase and net migration, and total increase are owing to distribution or intercensal discrepancy.
(f) The rates represent total increase in population during the year expressed as a proportion of the population at the end of the previous year.
(g) Prior to 1971 figures are at 31 December. Those for 1971 and later are as at 30 June.

22.2 – VITAL STATISTICS (a)

Year	Marriages	Divorces (c)	Live birth (d)	Deaths (d)(e)	Crude rate per 1,000 of mean population(b)(d)				Infant mortality (d)(f)(g)	
					Marriages	Births	Deaths(e)	Divorces		
	No.	No.	No.	No.	Rate	Rate	Rate	Rate	No.	Rate
1860	151	n.a.	588	209	10.0	39.0	13.2	n.a.	n.a.	n.a.
1870	153	n.a.	853	378	6.2	34.3	15.2	n.a.	100	117.2
1880	214	n.a.	933	382	7.3	31.8	13.0	n.a.	72	77.2
1890	278	n.a.	1 561	540	5.9	33.2	11.5	n.a.	140	89.7
1900	1 781	n.a.	5 454	2 240	10.2	31.2	12.8	n.a.	688	126.2
1910	2 107	n.a.	7 585	2 740	7.8	28.0	10.1	n.a.	593	78.2
1920	2 932	n.a.	8 149	3 388	8.9	24.7	10.3	n.a.	538	66.0
1930	3 205	n.a.	9 200	3 774	7.5	21.4	8.8	n.a.	430	46.7
1940	5 234	n.a.	9 121	4 486	11.1	19.3	9.5	n.a.	403	44.2
1950	5 434	720	14 228	5 058	9.7	25.5	9.1	1.3	386	27.1
1960	5 323	540	16 926	5 697	7.4	23.4	7.9	0.8	366	21.6
1961	5 150	466	17 078	5 729	7.0	23.2	7.8	0.6	336	19.7
1962	5 466	582	17 064	5 810	7.2	22.6	7.7	0.8	380	22.3
1963	5 755	553	17 290	5 976	7.4	22.2	7.7	0.7	353	20.4
1964	6 023	542	16 685	6 429	7.6	20.9	8.1	0.7	328	19.7
1965	6 448	604	16 186	6 274	7.9	19.9	7.7	0.8	351	21.7
1966	7 002	637	17 194	6 902	8.3	20.3	8.1	0.8	343	20.0
1967	7 430	726	18 023	6 779	8.4	20.5	7.7	0.8	314	17.4
1968	8 086	812	19 541	7 468	8.8	21.3	8.2	0.9	398	20.4
1969	8 993	872	20 754	7 350	9.4	21.7	7.7	0.9	453	21.8
1970	9 227	889	21 618	7 543	9.3	21.7	7.6	0.9	459	21.2
1971	9 382	1 064	24 239	7 806	8.9	23.0	7.4	1.0	464	19.1
1972	9 120	1 243	22 177	7 441	8.4	20.5	6.9	1.2	348	15.7
1973	9 102	1 424	20 510	7 845	8.3	18.6	7.1	1.3	394	19.2
1974	9 295	1 761	20 207	7 778	8.2	17.9	6.9	1.6	327	16.2
1975	9 026	2 240	20 338	7 972	7.8	17.6	6.9	2.0	271	13.3
1976	9 517	4 818	20 670	7 740	8.1	17.5	6.6	4.1	273	13.2
1977	10 063	3 975	20 651	7 899	8.4	17.2	6.6	3.3	251	12.2
1978	9 404	3 387	20 611	7 794	7.7	16.8	6.4	2.8	230	11.2
1979	9 239	3 397	20 469	8 020	7.4	16.4	6.4	2.7	247	12.1
1980	9 594	3 073	20 607	8 166	7.6	16.2	6.4	2.4	239	11.6
1981	10 111	3 481	21 877	7 993	7.8	16.8	6.1	2.7	193	8.8
1982	10 455	3 842	22 236	8 187	7.8	16.6	6.2	2.9	204	9.2
1983	10 519	3 822	23 087	8 369	7.7	16.9	6.1	2.8	179	7.8
1984	9 920	4 069	21 625	8 503	7.1	15.5	6.1	2.9	232	10.7
1985	10 398	4 039	23 109	8 836	7.3	16.3	6.2	2.8	209	9.0
1986	10 379	4 001	24 236	9 307	7.1	16.6	6.4	2.7	214	8.8
1987	10 150	4 044	23 332	8 880	6.8	15.6	5.9	2.6	196	8.4
1988	10 578	3 964	25 143	9 532	6.9	16.4	6.2	2.6	214	8.5
1989	10 739	4 089	25 051	9 543	6.8	15.9	6.1	2.6	195	7.8
1990	10 613	3 845	25 356	9 407	6.6	15.8	5.8	2.4	217	8.6
1991	10 659	4 446	25 417	9 528	6.5	15.5	5.8	2.7	183	7.2
1992	10 118	4 540	25 073	9 898	6.1	15.1	6.0	2.7	175	6.8
1993	10 382	4 654	25 081	10 316	6.2	15.0	6.2	2.8	147	5.7
1994	10 366	5 024	25 138	10 293	6.1	14.8	6.1	3.0	140	5.6
1995p	10 404	5 040	25 139	10 364	6.0	14.5	6.0	2.9	128	5.1

(a) Figures for 1965 and earlier exclude the indigenous population.
(b) Crude Birth, Death, Marriage and Divorce rates per 1,000 of the mean population are at 30 June except for 1994 and subsequent years, which are per 1,000 estimated mid-year resident population.
(c) Final orders - dissolution of marriages. 1975 marked the introduction of the Family Law Act in which the only ground for divorce was the irretrievable breakdown of the marriage.
(d) Births and deaths figures for 1982 and earlier years are on a State of registration basis. Figures for 1983 and later are based on State of Usual residence.
(e) Excludes fetal deaths (stillbirths) and between September 1939 and June 1947, deaths of defence personnel, whether in Australia or overseas.
(f) Deaths under 1 year of age included in deaths registered, excluding stillbirths.
(g) Per 1,000 live births.

22.3 – SOCIAL SERVICE BENEFICIARIES AND REPATRIATION PENSIONS

Year ended 30 June	Social service benefits: Pensioners (a)(b): Age (d)	Pensioners (a)(b): Disability/ Invalid (d)	Pensioners (a)(b): Total Age and Invalid	Widow	Family allowance (a)(c) (e)(f)(g)(h)	Unemployment benefit (i)	Repatriation pensions: Disability (a) (j)	Repatriation pensions: Service (a) (k)
1950	24 316	4 294	28 610	2 883	133 557	267	48 878	1 953
1951	24 317	4 184	28 501	2 789	172 186	60	51 027	2 022
1952	24 782	3 964	28 746	2 676	183 257	57	52 071	2 136
1953	25 679	3 996	29 675	2 686	192 991	844	52 607	2 343
1954	27 248	4 101	31 349	2 753	202 098	427	53 352	2 468
1955	28 833	4 191	33 024	2 848	212 025	157	54 117	2 692
1956	30 244	4 425	34 669	3 015	220 792	473	54 427	3 648
1957	32 192	5 039	37 231	3 243	230 922	1 940	54 987	4 306
1958	33 124	5 519	38 643	3 542	237 732	2 330	55 251	4 672
1959	34 629	5 941	40 570	3 833	245 090	2 852	56 008	5 009
1960	36 575	6 152	42 727	4 039	250 449	2 512	56 644	5 344
1961	37 656	6 945	44 601	4 348	257 037	2 154	57 123	6 101
1962	39 104	7 826	46 930	4 570	266 067	2 932	57 947	7 115
1963	40 661	8 170	48 831	4 486	270 736	2 674	57 580	7 526
1964	41 819	8 306	50 125	4 734	283 775	2 677	57 047	7 754
1965	42 706	8 615	51 321	4 926	288 486	1 679	55 920	7 780
1966	43 876	8 575	52 451	5 071	295 303	785	54 560	7 757
1967	45 741	8 307	54 048	5 228	306 325	418	52 967	7 674
1968	48 850	8 310	57 160	5 482	317 491	608	51 193	7 586
1969	50 432	8 413	58 845	5 559	329 593	524	49 526	7 298
1970	56 017	7 933	63 950	6 086	333 597	474	47 993	7 783
1971	58 224	8 155	66 379	6 392	347 585	872	46 514	7 767
1972	60 523	8 485	69 008	6 795	358 907	2 808	45 079	7 864
1973	68 701	9 518	78 219	7 948	364 590	4 960	44 093	9 599
1974	76 124	10 406	86 530	8 763	360 989	2 863	42 807	10 669
1975	79 831	10 961	90 792	9 442	368 626	9 317	41 747	11 814
1976	84 087	12 265	96 352	10 027	373 149	13 598	40 619	13 472
1977	86 470	13 263	99 733	10 691	376 346	15 706	39 459	15 338
1978	94 491	13 653	108 144	11 494	377 545	20 470	38 053	16 975
1979	96 558	15 045	111 603	12 232	371 315	(l)29 000	36 883	18 794
1980	98 887	15 894	114 781	12 476	375 013	(l)29 800	35 857	21 131
1981	101 042	16 352	117 394	12 526	377 113	28 638	34 920	23 704
1982	103 397	17 195	120 592	12 654	385 708	31 636	34 696	26 121
1983	105 784	18 598	124 382	12 830	391 885	50 992	34 726	29 346
1984	103 889	21 124	125 013	12 934	393 952	(l)59 400	34 808	32 640
1985	102 943	23 889	126 832	12 977	396 851	(l)57 900	34 952	34 815
1986	103 085	25 769	128 854	12 817	388 251	(l)54 358	35 223	36 423
1987	103 339	27 886	131 225	12 647	388 360	56 441	31 760	36 532
1988	103 743	28 522	132 265	11 898	367 107	46 091	31 362	36 798
1989	104 816	29 706	134 522	6 901	366 490	35 621	30 761	36 246
1990	106 301	30 590	136 891	6 488	362 930	34 770	30 285	35 570
1991	109 592	32 508	142 100	6 070	371 453	55 756	29 776	35 003
1992	115 397	35 136	150 533	5 816	373 002	78 420	29 355	34 514
1993	121 387	36 817	158 204	5 545	373 295	79 903	29 005	34 047
1994	126 315	38 614	164 929	5 224	354 586	71 916	28 604	33 070
1995	126 832	40 539	167 371	4 888	347 978	66 678	28 396	32 540

(a) Number at 30 June.
(b) Excludes wife/carer pension.
(c) Previously child and student endowment. Name of benefit, rates and conditions changed from 15 June 1976.
(d) Prior to June 1957 excludes pensioners in benevolent homes.
(e) Prior to 30 June 1957 excludes endowed children in institutions.
(f) From 20 June 1950 endowment extended to include first or only children.
(g) From 14 January 1964 includes students aged 16 and under 21; extended to 25 years in 1976.
(h) Family Income Supplement began in May 1983 and was subsumed by Family Allowance Supplement (FAS) from December 1987. From January 1993, Additional Family Payment replaced FAS and additional Pension/Allowance/Benefit for children.
(i) Average number of persons on benefit at end of each week.
(j) Includes pensions paid to incapacitated veterans and to dependants of incapacitated or deceased veterans.
(k) Comprises pensions paid to veterans and their dependants.
(l) Estimated.

22.4 – AGRICULTURE

Year (a)	Livestock (b)			Wool production (c)		Area and production of principal grain crops (e)			
						Wheat			
	Cattle	Sheep	Pigs	Quantity	Gross value (d)	Area	Yield per hectare	Production	Gross Value of Prod'n
	'000	000	'000	tonnes	$'000	000 hectares	tonnes	'000 tonnes	$'000
1840	2	31	2	n.a.	n.a.	1	1.11	1	n.a.
1850	13	128	3	n.a.	n.a.	2	n.a.	n.a.	n.a.
1860	32	260	11	298	n.a.	6	1.00	6	n.a.
1870	45	609	13	811	n.a.	11	0.79	9	n.a.
1880	64	1 232	24	1 970	n.a.	11	0.62	7	n.a.
1890	131	2 525	29	3 161	n.a.	14	0.92	13	n.a.
1900	339	2 434	62	4 323	n.a.	30	0.70	21	310
1910	825	5 159	58	13 210	2 141	236	0.68	161	2 162
1920	850	6 533	61	18 947	4 552	516	0.65	333	11 023
1930	813	9 883	101	32 451	4 829	1 601	0.91	1 456	12 201
1940	789	9 516	218	32 362	7 889	1 062	0.54	573	8 648
1950	865	10 923	79	42 071	47 237	1 171	0.89	1 048	51 339
1960	1 030	16 412	131	72 979	75 302	1 505	1.06	1 597	82 361
1961	1 100	17 151	176	82 652	73 863	1 627	1.07	1 739	92 290
1962	1 218	18 314	174	83 159	79 283	1 773	1.01	1 788	100 023
1963	1 298	18 727	131	80 366	80 071	1 944	1.01	1 973	107 023
1964	1 299	20 165	128	95 053	116 331	1 878	0.76	1 424	74 389
1965	1 258	22 392	137	91 170	93 275	2 085	0.82	1 717	88 557
1966	1 271	24 427	144	108 116	115 183	2 489	1.12	2 780	153 050
1967	1 357	27 370	161	119 681	121 509	2 569	1.09	2 809	153 157
1968	1 427	30 161	183	131 379	116 653	2 690	1.08	2 911	170 102
1969	1 546	32 901	220	164 307	158 264	2 952	1.04	3 060	151 306
1970	1 681	33 634	250	144 527	120 819	2 747	0.66	1 815	90 961
1971	1 781	34 709	278	151 808	92 009	2 361	1.25	2 957	153 227
1972	1 975	34 405	427	170 219	135 137	2 042	1.06	2 165	115 934
1973	2 182	30 919	476	140 649	225 041	2 437	0.82	2 003	109 399
1974	2 330	32 451	344	143 147	251 712	2 978	1.41	4 211	461 049
1975	2 544	34 476	264	172 659	218 859	2 810	1.17	3 277	361 211
1976	2 654	34 771	260	174 807	242 027	3 171	1.30	4 122	427 507
1977	2 464	31 158	242	156 237	291 358	3 314	0.98	3 249	290 489
1978	2 271	29 823	237	143 127	258 034	3 609	0.82	2 945	292 901
1979	2 092	30 265	271	150 284	286 601	3 706	1.19	4 400	546 827
1980	2 065	30 431	293	147 840	348 214	4 121	0.91	3 739	571 158
1981	2 033	30 764	289	160 096	401 030	4 333	0.77	3 315	508 734
1982	1 942	30 268	263	145 126	378 540	4 593	1.05	4 803	762 706
1983	1 754	30 164	300	148 190	395 896	4 865	1.14	5 534	982 505
1984	1 730	29 518	300	141 359	407 451	4 746	0.91	4 316	702 330
1985	1 673	31 574	274	170 030	503 963	4 652	1.41	6 580	1 134 766
1986	1 690	33 213	278	175 859	577 273	4 148	1.05	4 362	736 334
1987	1 660	33 463	295	188 773	716 263	4 260	1.26	5 377	836 016
1988	1 705	33 951	307	188 527	1 252 674	3 312	1.17	3 882	649 969
1989	1 702	37 090	285	203 173	1 395 116	3 297	1.58	5 225	1 122 328
1990	1 672	38 422	272	236 079	1 253 637	3 476	1.38	4 800	r951 537
1991	1 566	36 465	270	222 252	874 360	3 632	1.50	5 448	744 797
1992	1 649	34 060	318	r182 027	608 237	3 230	1.47	4 736	950 333
1993	1 648	32 965	305	r203 626	604 818	3 669	1.63	5 979	1 083 842
1994	1 806	31 952	312	212 266	604 700	3 852	1.74	6 689	1 156 900
1995	1 899	30 218	316	173 383	811 223	3 848	1.41	5 438	1 397 400

(a) Figures relate to varying time periods (eg. year ended 30 June, year ended 31 December, year ended 31 March), owing to changes in the method of data collection.

(b) From 1943 figures relate to the season ended 31 March.

(c) Comprises shorn, dead and fellmongered wool, and wool exported on skins. For 1947 and earlier, figures relate to the year ended 31 December; for the years 1949 to 1964 figures are for the year ended 31 March. From 1965 figures relate to the year ended 30 June in the following year.

(d) Figures for 1949 and 1951 to 1955 exclude distributions of profits under the 1939-1945 War-time Wool disposals Plan, aggregating $13,869,934. Separate State figures are not available for distributions made from 1956 to 1958 when payments were virtually complete.

(e) From 1944 figures relate to the season ended 31 March.

22.4 – AGRICULTURE - Continued

Year (a)	Area and production of principal grain crops (b) continued						Area used for crops (c)	Gross value of primary commodities produced (d)	
	Oats		Barley		Hay (all types)			Agriculture	Fisheries (e)
	Area	Production	Area	Production	Area	Production			
	'000 hectares	'000 tonnes	'000 hectares	'000 tonnes	000 hectares	'000 tonnes	'000 hectares	$000	$'000
1840	n.a.	n.a.	n.a.	n.a.	—	n.a.	1	n.a.	n.a.
1850	n.a.	n.a.	n.a.	n.a.	1	n.a.	3	n.a.	n.a.
1860	..	—	1	1	2	8	10	n.a.	n.a.
1870	1	1	2	2	7	21	22	n.a.	n.a.
1880	—	—	2	2	8	20	26	n.a.	n.a.
1890	1	1	2	2	9	25	28	n.a.	n.a.
1900	2	2	1	1	42	106	81	n.a.	n.a.
1910	25	14	1	1	71	182	346	n.a.	n.a.
1920	78	37	4	3	108	268	730	(f)29 364	n.a.
1930	111	60	7	4	161	500	1 939	(f)38 747	544
1940	174	59	27	16	169	381	1 614	39 520	r562
1950	237	132	28	22	87	276	1 737	141 348	1 432
1960	502	356	170	161	129	440	2 583	256 002	8 621
1961	538	396	219	193	115	387	2 734	266 972	8 569
1962	498	366	199	165	119	402	2 823	280 475	10 689
1963	476	367	158	137	138	460	2 965	292 615	11 219
1964	455	324	121	92	117	395	2 714	300 766	10 187
1965	466	254	123	84	123	396	2 950	296 147	15 218
1966	502	422	167	147	118	421	3 419	406 097	15 733
1967	487	401	151	152	119	424	3 463	411 084	16 525
1968	469	359	168	159	129	428	3 595	428 258	21 954
1969	442	416	224	208	138	508	3 840	461 479	23 717
1970	461	281	364	273	202	576	3 916	370 557	19 660
1971	520	520	632	769	190	673	3 831	445 390	25 127
1972	454	414	911	1 000	177	653	3 751	461 581	30 817
1973	297	212	744	640	224	664	3 855	574 665	28 158
1974	325	383	510	626	220	734	4 133	1 034 191	30 494
1975	262	250	387	329	164	508	3 758	845 169	35 130
1976	320	386	419	505	163	536	4 207	996 633	51 079
1977	372	347	452	553	169	560	4 416	959 160	69 094
1978	415	416	614	751	191	597	4 910	993 889	88 340
1979	427	491	616	778	184	586	4 993	1 343 932	96 055
1980	370	399	523	632	208	636	5 280	1 572 744	85 652
1981	382	384	535	504	240	703	5 547	1 678 031	82 764
1982	432	442	580	576	255	711	5 963	1 874 267	99 254
1983	461	534	603	717	252	754	6 379	2 196 230	126 208
1984	448	456	771	797	238	676	6 526	1 940 863	142 658
1985	351	460	965	1 431	226	747	6 723	2 602 205	165 443
1986	288	338	826	1 024	201	633	5 970	2 213 118	143 034
1987	302	414	468	601	218	681	5 930	2 554 658	182 421
1988	373	502	461	617	243	778	5 334	2 991 232	254 399
1989	389	618	383	552	248	873	5 082	3 719 597	242 412
1990	340	529	421	628	229	811	5 174	r3 369 132	231 677
1991	323	496	498	742	219	772	5 354	2 736 407	264 484
1992	367	614	554	900	239	901	5 216	2 849 384	n.p.
1993	332	578	611	1 061	198	763	5 668	3 114 773	n.p.
1994	268	511	799	1 381	199	812	6 100	3 365 074	n.p.
1995	256	425	579	915	217	787	6 181	3 861 369	n.p.

(a) Figures relate to varying time periods (e.g. year ended 30 June, year ended 31 December, year ended 31 March), owing to changes in the method of data collection.
(b) From 1944 figures relate to the season ended 31 March.
(c) Excludes pasture hay, and from 1967 also excludes lucerne.
(d) Estimated value of recorded production based on wholesale prices mostly at principal market.
(e) From 1980 excludes pearling and whaling.
(f) Includes hunting.

22.5 – PRIMARY PRODUCTION

Year	Gold production (a) (b)		Coal production (c)		Average values f.o.b. (d)	
	Quantity	Value	Quantity	Value	Wool (greasy) per kg (e)	Wheat per tonne (f)
	'000 grams	$ 000	'000 tonnes	$ 000	cents	$
1890	622	171		—	n.a.	..
1900	43 980	12 015	120	110	n.a.	5.51
1910	45 753	12 494	266	227	16.20	14.85
1920	19 222	6 951	469	701	28.26	26.33
1930	13 001	3 729	509	770	19.37	16.69
1940	37 044	25 393	548	729	25.68	11.19
1950	18 973	18 933	827	2 575	105.91	57.03
1951	19 533	19 451	862	3 434	263.50	62.25
1952	22 706	23 696	843	4 915	138.10	62.64
1953	25 629	26 598	900	6 146	148.04	63.57
1954	26 469	26 627	1 034	7 178	156.20	60.90
1955	26 189	26 749	919	6 179	135.39	52.22
1956	25 256	26 405	843	5 448	112.66	46.57
1957	27 900	29 102	852	5 105	144.67	48.12
1958	26 967	28 357	885	4 561	130.80	56.35
1959	26 967	28 388	926	4 713	91.87	51.76
1960	26 625	28 140	937	4 878	115.37	49.48
1961	27 122	28 584	778	3 361	99.10	49.91
1962	26 717	28 115	934	3 962	109.80	51.90
1963	24 883	26 375	916	3 970	111.38	52.30
1964	22 177	23 383	1 003	4 679	134.47	52.01
1965	20 497	22 381	1 010	4 410	120.58	51.66
1966	19 564	23 316	1 078	4 562	116.00	51.12
1967	17 916	21 690	1 079	4 765	117.46	54.88
1968	15 925	19 407	1 104	4 817	105.69	51.31
1969	14 961	19 040	1 120	4 853	107.60	51.26
1970	12 310	15 811	1 178	5 407	98.11	47.72
1971	10 736	13 674	1 190	5 653	75.33	48.88
1972	10 848	14 835	1 188	5 855	74.94	49.52
1973	9 264	16 718	1 154	6 422	150.21	49.67
1974	7 173	19 183	1 197	7 237	215.36	98.75
1975	6 305	29 788	1 879	12 511	144.37	126.39
1976	7 644	27 141	2 157	17 613	147.62	116.89
1977	7 619	31 586	2 339	21 896	188.10	105.10
1978	13 653	64 741	2 435	24 846	195.76	92.52
1979	12 231	78 313	2 406	34 484	207.87	116.53
1980	11 598	158 253	3 039	54 464	253.81	146.45
1981	10 532	165 376	3 127	63 100	270.01	160.32
1982	16 135	178 566	3 435	75 132	288.61	155.48
1983	22 992	334 802	3 903	95 529	303.41	168.10
1984	26 183	365 453	3 942	106 325	317.08	173.81
1985	37 425	508 892	3 673	109 120	353.01	187.09
1986	46 072	707 114	3 765	126 841	376.50	185.14
1987	64 911	1 300 079	3 782	n.p.	430.31	144.86
1988(g)	107 290	1 913 146	3 790	158 004	651.33	146.18
1989	135 281	2 077 235	3 900	166 021	721.94	202.00
1990	176 347	2 794 000	4 831	214 254	627.18	223.06
1991	171 960	2 666 335	5 114	228 562	374.30	140.23
1992	181 286	2 739 447	5 655	251 763	374.28	187.26
1993	183 487	3 139 858	5 453	247 611	359.27	215.38
1994	r192 480	r3 256 456	5 035	r234 017	341.86	186.49
1995	(h)189 353	(h)3 161 566	6 062	280 656	507.07	206.99

(a) Prior to 1971 comprises gold refined at the Mint and gold contained in gold-bearing materials exported.
(b) From 1971 covers gold and coal production as notified by the Department of Minerals and Energy.
(c) From 1969 figures relate to year ended 30 June
(d) From 1978 figures relate to foreign exports only.
(e) From 1920 figures relate to year ended 30 June.
(f) Prior to 1940 averages generally are based on exports of the previous season's wheat; from 1940 they relate to exports during the year ended 30 June.
(g) From 1988, figures relate to year ended 31 December.
(h) Estimates

22.6 – SECONDARY PRODUCTION

Year (a)	Manufacturing establishments(b)	Persons employed(c)	Wages and salaries(d)	Turnover(e)	Value added(f)
	No.	'000	$m	$m	$m
1900	632	11.2	2.6	n.a.	0.0
1910	822	14.9	3.5	10.2	5.5
1920	998	16.9	6.1	26.3	9.7
1930	1 466	19.6	8.3	33.8	15.0
1940	2 129	23.0	9.2	40.6	18.1
1950	3 023	40.7	30.6	173.0	522.1
1960	4 279	49.7	83.3	431.2	172.7
1961	4 334	50.7	90.3	481.1	193.3
1962	4 418	51.0	92.8	487.0	196.1
1963	4 492	53.4	99.9	517.9	216.4
1964	4 609	55.7	108.5	555.1	230.5
1965	4 734	58.1	120.0	616.4	260.6
1966	4 906	60.3	134.2	678.8	288.8
1967	5 167	63.8	153.6	765.2	335.8
1968	5 404	67.3	175.1	887.4	388.3
1969	2 585	59.9	183.2	919.6	361.5
1970	2 705	62.6	208.4	1 028.8	415.0
1971	(g)	(g)	(g)	(g)	(g)
1972	2 727	64.2	255.9	1 240.1	472.0
1973	2 814	64.1	275.5	1 375.9	501.0
1974	2 818	67.9	346.9	1 741.0	658.4
1975	1 974	65.9	434.3	2 032.4	779.8
1976	2 054	66.0	508.9	2 432.7	944.5
1977	2 035	66.8	594.5	2 882.4	1 151.6
1978	2 037	65.7	629.1	3 031.5	1 208.7
1979	2 202	65.2	670.8	3 498.8	1 321.7
1980	2 301	66.0	734.2	4 259.1	1 643.3
1981	2 426	68.9	869.2	4 902.2	1 876.7
1982	2 603	70.8	1 013.4	5 491.0	2 052.7
1983	2 499	65.0	1 038.3	5 596.5	2 040.9
1984	2 408	62.0	1 047.4	5 922.7	2 136.7
1985	2 451	64.2	1 137.6	6 788.5	2 513.2
1986	(g)	(g)	(g)	(g)	(g)
1987	2 660	69.3	1 407.0	8 215.1	2 998.7
1988	2 675	72.1	1 604.8	9 416.9	n.a.
1989	2 651	72.7	1 710.5	10 579.0	n.a.
1990	r3 442	r68.8	r1 813.9	r13 280.2	r57 98.9
1991	r3 463	r64.0	r1 771.4	r13 108.6	n.a.
1992	3 573	r61.9	r1 788.1	r12 896.6	n.a.
1993	3 426	62.1	1 830.8	13 298.6	4 807.0
1994	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.
1995	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.

(a) From 1930, year ended 30 June.
(b) Excludes details of single establishment manufacturing enterprises employing fewer than four persons. For details of breaks in series refer to publications of Censuses of Manufacturing Establishments statistics.
(c) Average over whole year including working proprietors. Prior to 1926-27 includes fellers and haulers employed by sawmills. From 1988, employment at 30 June.
(d) Figures for 1929-30 and later exclude amounts drawn by working proprietors.
(e) Selling value 'at the factory'.
(f) Value added in course of manufacture, representing sum available for payment of wages, rent, depreciation, other sundry expenses and for interest and profit.
(g) No census of manufacturing establishments was conducted for this year.

22.6 – SECONDARY PRODUCTION Continued

Year	Bricks (a)	Scoured wool (b)	Bacon and ham (c)	Butter (d)	Cheese	Timber from local logs (f)
	'000	tonnes	tonnes	tonnes	tonnes	'000 cu m
1900	25 234	n.a.	n.a.	132	n.a.	266
1910	23 162	n.a.	n.a.	291	n.a.	412
1920	31 838	n.a.	850	553	n.a.	325
1930	47 720	n.a.	1 180	2 143	n.a.	377
1940	43 786	2 459	2 106	6 351	382	360
1950	58 943	7 110	3 599	6 878	712	363
1960	110 359	15 271	3 228	7 494	1 466	532
1961	119 998	13 420	3 214	7 784	1 373	496
1962	119 868	14 459	3 556	7 603	1 386	505
1963	131 176	13 312	3 899	7 075	1 462	486
1964	155 792	12 464	3 841	7 026	1 530	517
1965	146 057	12 040	4 047	7 887	1 838	550
1966	140 611	12 107	4 357	8 225	1 230	552
1967	163 166	12 148	4 654	6 529	1 726	533
1968	207 575	12 662	5 173	6 009	1 983	557
1969	273 078	14 415	5 591	6 332	2 022	444
1970	288 949	14 940	5 399	5 915	1 718	450
1971	240 323	10 724	4 863	5 425	1 917	449
1972	227 581	17 009	5 116	5 988	1 979	407
1973	278 610	11 987	5 257	5 324	1 869	405
1974	304 178	10 791	5 530	5 223	1 922	408
1975	262 905	11 779	5 294	4 981	2 291	392
1976	328 356	13 969	5 439	4 531	2 673	388
1977	385 942	15 818	5 836	3 340	2 074	375
1978	357 391	13 308	5 666	2 212	1 812	386
1979	381 092	16 129	5 516	1 373	2 364	341
1980	404 954	20 128	5 930	995	2 866	349
1981	381 909	21 645	6 062	834	3 342	347
1982	391 743	19 574	6 074	799	3 322	334
1983	279 164	13 747	6 405	914	3 417	257
1984	n.p.	17 053	6 807	1 269	3 665	265
1985	n.p.	21 938	7 862	1 582	3 736	305
1986	n.p.	22 992	8 174	1 595	3 400	329
1987	n.p.	29 109	8 502	1 400	3 727	317
1988	n.p.	25 820	8 377	1 505	3 772	319
1989	n.a.	19 475	9 937	r1 139	r3 586	324
1990	n.a.	19 511	9 937	1 339	4 129	955
1991	n.a.	22 815	10 674	1 478	5 256	263
1992	n.a.	27 320	9 974	r2 046	5 380	259
1993	n.a.	n.y.a.	10 574	2 665	5 804	n.a.
1994	n.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.a.
1995	n.a.	n.y.a.	n.y.a.	n.y.a.	n.y.a.	n.a.

(a) For years prior to 1964–65, figures represent clay bricks only (all sizes).
(b) Excludes fell-mongered, dead or waste wool.
(c) From 1977–78 excludes canned bacon and ham.
(d) For 1917 and earlier years, includes butter made on farms. Source: From 1977–78 to 1980–81, Western Australian Department of Agriculture; from 1981–82, the Australian Dairy Corporation.
(e) Source: 1933–34 to 1967–68, annual manufacturing census; 1968–69 to 1970–71, Commonwealth Dairy Produce Equalisation Committee Ltd. From 1971–72 to 1980–81, WA Department of Agriculture ; from 1981–82, the Australian Dairy Corporation.
(f) Prior to 1968–69, figures also include hewn timber.

22.7 – BUILDING COMPLETED (a)

Year ended 30 June	Houses (b) (c) (d)		Other Residential buildings (b)(c)		Alterations and additions (f) to residential buildings	Non-residential building (g)				Total building (e)
		(e)		(e)	Value (e)	Factories	Offices	Educational	Total	
	No.	$m	No.	$m	$m	$m	$m	$m	$m	$m
1950	3 509	9.0	101	0.2	(h)	0.4	n.a.	n.a.	1.5	10.7
1951	5 160	15.0	305	0.6	(h)	0.4	n.a.	n.a.	2.3	17.9
1952	6 577	24.5	215	0.3	(h)	1.4	n.a.	n.a.	4.1	28.9
1953	7 965	38.0	100	0.3	(h)	1.7	n.a.	n.a.	7.5	45.8
1954	7 627	39.8	22	0.8	(h)	1.7	n.a.	n.a.	11.0	51.6
1955	8 792	48.4	316	1.2	(h)	6.2	n.a.	n.a.	18.6	68.2
1956	7 760	45.1	584	2.6	(h)	3.8	0.8	2.2	19.7	67.4
1957	5 030	29.1	365	1.5	(h)	2.2	2.0	1.2	16.3	46.8
1958	6 196	36.5	171	0.7	(h)	2.5	3.9	1.1	17.3	54.5
1959	5 846	34.4	212	0.8	(h)	2.8	2.4	4.6	25.3	60.5
1960	5 997	35.5	263	1.0	(h)	2.4	1.5	5.8	23.8	60.2
1961	5 973	38.1	440	1.6	(h)	4.7	4.1	8.0	32.4	72.0
1962	6 082	39.5	265	1.3	(h)	3.0	2.9	6.0	27.3	68.1
1963	6 593	45.8	642	3.0	(h)	4.9	1.6	7.7	37.7	86.4
1964	7 276	51.8	1 295	5.6	(h)	5.4	6.0	6.2	35.5	92.9
1965	7 445	57.2	1 841	9.0	(h)	6.8	2.8	8.0	40.8	107.1
1966	7 265	58.1	1 624	9.1	(h)	9.6	10.6	8.5	63.0	130.2
1967	8 272	78.1	1 742	9.3	(h)	9.8	7.1	10.5	74.7	162.1
1968	9 858	97.4	2 392	12.6	(h)	15.1	14.6	12.1	85.5	195.4
1969	12 840	133.3	3 491	22.4	(h)	15.8	10.9	14.1	99.2	254.8
1970	13 933	151.3	5 596	40.5	(h)	16.6	14.3	13.3	111.6	303.4
1971	11 900	149.3	5 013	40.0	0.4	18.0	39.7	20.6	175.4	365.0
1972	13 209	165.5	1 595	13.9	1.2	21.3	19.4	16.3	150.8	331.4
1973	13 660	163.4	920	7.3	1.8	15.6	21.2	24.8	151.5	324.0
1974	12 517	176.4	3 546	32.8	2.8	23.4	19.0	21.8	139.2	351.2
1975	10 994	198.6	3 300	38.9	4.4	18.2	18.4	40.0	170.1	412.0
1976	12 080	253.8	2 948	44.0	8.7	22.4	45.7	58.3	227.3	533.8
1977	15 155	395.0	6 152	113.9	15.4	26.6	43.5	29.5	226.4	750.7
1978	12 685	378.8	4 681	98.9	21.5	34.6	18.2	46.1	234.1	733.3
1979	11 148	349.1	3 507	74.9	30.5	44.0	33.2	56.3	339.3	793.8
1980	11 648	380.9	4 156	93.2	33.3	51.5	49.9	33.2	301.9	809.4
1981	10 120	375.5	4 531	108.0	37.5	37.0	75.0	29.6	308.8	829.7
1982	9 440	398.5	5 255	165.0	51.9	52.6	131.5	39.9	495.6	1 111.0
1983	9 070	372.5	4 020	143.4	47.4	45.2	152.1	37.7	464.3	1 027.5
1984	10 340	407.4	2 124	75.9	41.0	19.0	75.0	45.1	351.0	875.4
1985	14 000	583.9	3 735	115.3	51.9	27.9	55.6	30.7	357.5	1 108.6
1986	12 620	615.7	4 217	158.1	60.5	91.5	149.9	65.3	630.8	1 465.1
1987	12 330	651.5	3 619	144.3	70.4	39.0	155.8	99.2	795.0	1 661.2
1988	12 390	694.4	3 518	140.6	80.2	63.4	208.1	120.9	884.5	1 799.7
1989	14 660	906.9	4 631	193.6	99.5	81.3	263.6	65.1	959.5	2 159.5
1990	17 690	1 296.1	7 229	367.9	142.0	97.4	343.5	161.9	1 194.0	3 000.0
1991	11 385	904.3	3 959	240.6	143.5	59.3	203.1	117.5	761.4	2 049.8
1992	11 539	892.7	3 377	195.5	139.6	19.1	611.6	91.6	1 081.0	2 308.9
1993	14 368	1 064.0	5 436	343.5	137.0	42.3	313.2	130.5	882.0	2 426.5
1994	16 069	1 284.3	5 770	370.3	r143.4	46.5	87.0	123.0	744.4	2 542.5
1995	r17 384	r1 500.3	r6 748	r476.1	r171.2	r78.5	85.3	r142.6	r955.1	r3 102.7
1996	12 894	1 284.0	4 460	352.6	179.6	61.5	155.9	70.5	790.1	2 606.4

(a) From 1981 figures are not strictly comparable with those for earlier periods.
(b) Prior to 1970-71 figures include alterations and additions to dwellings. Data for 1970–71 and later years relate to new dwellings only.
(c) From July 1973 changes in the classification of residential buildings mean that figures for earlier years are not comparable.
(d) From 1981 numbers of new houses are rounded to nearest ten units.
(e) Excludes the value of land.
(f) Valued at $10,000 and over.
(g) From 1 July 1990, valued at $50,000 and over (includes alterations and additions). From 1 July 1985 to 30 June 1990, valued at $30,000 and over (includes alterations and additions). Prior to 1 July 1985, valued at $10,000 and over (includes alterations and additions).
(h) Not available separately; includes with Houses and Other residential buildings as appropriate.

22.8 – TRANSPORT; CUSTOMS AND EXCISE

Year	State Government railways (a) Route kilometres at end of year (b)	Paying goods	Private railways Route kilometres at end of year	Air passenger movements Perth Airport Internal	Inter-national	Customs and excise gross revenue (c) Customs	Excise	Total
		'000 t		'000	'000	$000	$000	$000
1870	–		–	..	..	81	-	81
1880	55	2	61	..	..	186	-	186
1890	303	62	620	..	..	356	-	356
1900	2 181	1 406	1 003	..	..	1 889	63	1 952
1910	3 452	2 278	1 452	..	..	1 543	213	1 756
1920	5 695	2 656	1 477	..	..	1 311	799	2 110
1930	6 616	3 587	1 363	n.a.	..	3 882	1 527	5 409
1940	7 051	2 702	1 337	n.a.	..	3 769	2 395	6 164
1950	6 843	2 889	1 246	n.a.	..	10 166	10 943	21 109
1960	6 630	4 605	832	n.a.	n.a.	5 614	33 634	39 248
1961	6 635	4 911	755	n.a.	n.a.	7 470	33 835	41 305
1962	6 198	5 428	898	n.a.	n.a.	7 156	35 705	42 861
1963	6 111	4 870	888	n.a.	n.a.	8 996	35 944	44 940
1964	5 918	5 271	665	n.a.	n.a.	10 369	37 839	48 208
1965	6 008	5 133	34	n.a.	n.a.	10 692	43 349	54 041
1966	6 030	6 486	460	270	26	15 251	53 536	68 787
1967	6 140	7 999	455	294	36	13 569	58 176	71 745
1968	6 140	9 053	455	340	49	19 468	62 903	82 371
1969	6 157	9 078	882	382	54	21 202	69 289	90 490
1970	6 161	10 837	884	467	69	24 649	76 637	101 286
1971	6 175	13 457	884	541	84	32 262	88 978	121 240
1972	6 116	13 867	884	524	105	30 072	101 883	131 955
1973	6 168	13 706	1 220	596	117	25 714	106 054	131 768
1974	6 192	15 059	1 222	668	139	30 612	138 197	168 809
1975	6 075	16 348	1 181	681	165	44 114	148 310	192 424
1976	6 163	17 812	1 179	658	197	46 767	183 838	230 605
1977	6 165	19 003	1 155	746	206	63 037	203 852	266 889
1978	5 764	18 625	1 150	815	225	68 118	216 929	285 047
1979	5 764	19 288	1 155	879	261	71 704	256 486	328 190
1980	5 773	21 388	1 159	928	325	83 620	260 299	343 919
1981	5 773	20 271	1 160	960	377	110 939	283 499	394 438
1982	5 609	19 776	1 181	1 027	434	128 866	198 397	327 263
1983	5 610	19 791	1 177	1 005	414	130 752	379 889	510 641
1984	5 623	19 870	1 177	1 075	455	133 088	492 117	625 205
1985	5 563	22 085	1 285	1 195	502	176 416	496 172	672 588
1986	5 553	20 877	1 185	1 264	569	196 027	444 311	640 338
1987	5 553	21 264	1 185	1 432	649	213 647	284 677	498 324
1988	5 553	21 946	1 191	1 471	714	232 397	330 699	563 096
1989	5 553	24 294	1 198	1 140	812	260 204	326 816	587 020
1990	5 554	24 906	n.a.	1 399	861	258 328	376 293	634 621
1991	5 554	24 410	n.a.	1 939	824	n.a.	n.a.	n.a.
1992	5 554	25 890	n.a.	1 909	897	n.a.	n.a.	n.a.
1993	5 583	26 523	n.a.	2 210 (d)	1 001(e)	n.a.	n.a.	n.a.
1994	5 583	27 726	n.a.	2 532 (d)	1 121(e)	n.a.	n.a.	n.a.
1995	5 583	29 317	n.a.	p2 795 (d)	1 191(e)	n.a.	n.a.	n.a.
1996	5 369	31 081	n.a.	n.y.a.	n.y.a.	n.a.	n.a.	n.a.

(a) From 1900, year ended 30 June.
(b) Open for general and passenger traffic.
(c) From 1920, year ended 30 June.
(d) Interstate and intrastate. From July 1 1993, includes international services traffic carried by the major Australian airlines over Australian flight stages.
(e) Excludes passengers in transit.

22.9 – MOTOR VEHICLE REGISTRATIONS

	New motor vehicles registered (a)				Motor vehicles on register (d)			
Year	Motor cars (b)	Utilities, panel vans, trucks and buses	Motor cycles (c)	Total	Motor cars (e)	Utilities, panel vans, trucks and buses	Motor cycles (c)	Total
1890	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1900	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1910	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1920	n.a.	n.a.	n.a.	n.a.	3 404	n.a.	n.a.	n.a.
1930	n.a.	n.a.	n.a.	n.a.	31 130	11 358	7 707	50 195
1940	2 871	1 517	399	4 787	38 907	25 026	6 789	70 222
1950	8 926	4 707	2 346	15 979	48 632	43 206	12 897	104 735
1960	13 492	5 695	1 949	21 136	130 476	68 702	12 876	212 054
1961	15 161	5 542	1 080	21 783	141 612	70 974	12 589	225 175
1962	17 082	5 833	902	23 817	155 447	74 224	12 390	242 061
1963	23 175	6 367	754	30 296	169 800	75 500	11 500	256 800
1964	24 958	7 013	628	32 599	186 200	77 700	10 200	274 100
1965	23 304	6 897	553	30 754	197 800	78 500	8 900	285 200
1966	23 418	9 170	706	33 294	212 600	83 300	8 400	304 300
1967	27 922	9 404	1 158	38 484	231 200	86 300	8 400	325 900
1968	33 368	10 448	1 525	45 341	252 300	90 800	8 900	352 000
1969	35 379	11 018	1 539	47 936	275 300	94 500	9 600	379 400
1970	37 764	11 138	1 945	50 847	301 000	99 900	10 800	411 700
1971	37 769	10 872	2 718	51 359	328 500	104 900	12 200	445 600
1972	37 274	9 819	3 985	51 078	345 300	104 600	14 200	465 100
1973	36 904	11 425	4 914	53 243	364 400	107 400	16 800	488 600
1974	40 302	12 241	7 062	59 605	389 300	112 700	21 000	523 000
1975	41 474	13 693	6 613	61 780	414 800	125 000	24 600	564 400
1976	40 338	15 863	5 731	61 932	437 200	140 000	27 600	604 800
1977	44 363	17 362	3 887	65 612	473 731	153 174	28 022	654 927
1978	40 990	16 538	3 339	60 867	500 365	167 107	28 051	695 523
1979	40 882	14 025	2 713	57 620	518 705	174 064	26 916	719 685
1980	40 232	13 716	4 600	58 548	535 613	179 844	29 531	744 988
1981	41 660	15 223	6 088	62 971	552 552	187 599	33 009	773 160
1982	42 329	16 079	5 835	64 243	573 400	197 344	35 213	805 957
1983	38 812	15 043	5 147	59 002	576 893	196 539	35 852	809 284
1984	39 737	15 199	3 969	58 905	592 495	201 754	35 770	830 019
1985	46 070	17 956	4 310	68 336	615 442	214 649	36 229	866 320
1986	42 645	13 676	3 350	59 671	632 182	218 851	36 324	887 357
1987	33 642	10 198	2 305	46 145	647 734	223 030	35 287	906 051
1988	36 040	10 617	2 215	48 872	670 158	230 161	35 442	935 761
1989	44 100	14 149	2 522	60 771	708 253	241 698	36 294	986 245
1990	42 728	13 735	2 875	59 338	746 194	254 009	37 452	1 037 655
1991	36 926	10 874	2 784	50 584	764 157	259 246	38 240	1 061 643
1992	41 979	9 573	1 814	53 366	781 600	262 294	37 816	1 081 710
1993	45 567	11 556	2 117	59 240	803 728	269 408	37 894	1 111 030
1994	48 589	12 486	2 103	63 178	827 837	277 466	37 078	1 142 381
1995	51 947	12 952	2 344	67 243	855 129	286 243	37 440	1 178 812
1996	51 134	13 153	2 440	66 727	880 856	293 340	37 590	1 211 786

(a) Year ended 30 June.
(b) From 1959 includes station wagons previously included with commercial vehicles.
(c) Including motor scooters.
(d) From 1929 to 1995, at 30 June; for earlier years, at various dates; for 1996 at 2 November. For years before 1946, excludes Commonwealth Government-owned vehicles; from 1946, includes Commonwealth Government-owned vehicles other than those of defence services. From 1956 to 1976, series based on the results of the periodic census of motor vehicles. Improvements in the methodology used to produce statistics of motor vehicles on register have resulted in a break in the continuity of the series from 30 June 1983.
(e) From June 1956, includes station wagons previously included with commercial vehicles.

22.10 – EXPORTS OF SELECTED COMMODITIES (a)

Year(b)	Live Cattle	Live Sheep (c)	Meats – Fresh, chilled and frozen					
			Beef and veal		Mutton and lamb		Pigmeat	
	$'000	$'000	tonnes	$000	tonnes	$000	tonnes	$'000
1890	n.a.	n.a.	—	—	—	—	—	
1900	n.a.	n.a.	(d)	(d)	(d)	(d)	(d)	(d)
1910	n.a.	n.a.	—	—	..	..	—	—
1920	n.a.	n.a.	300	33	—	—	—	—
1930	1	46	5 162	272	—	—	—	—
1940	—	65	4 826	329	4 665	533	2 263	324
1950	5	426	8 625	1 183	2 392	485	163	59
1951	9	616	7 699	1 221	939	217	279	113
1952	23	631	6 028	1 135	1 044	301	424	232
1953	23	501	5 016	1 437	6 589	1 463	463	303
1954	29	568	6 148	1 748	3 309	875	215	152
1955	68	612	6 776	2 038	3 225	1 328	1 049	532
1956	177	625	7 601	2 343	6 602	2 156	743	482
1957	243	923	4 127	1 221	5 788	1 741	733	588
1958	308	841	11 025	3 302	5 083	1 900	2 324	1 462
1959	396	764	10 535	4 342	9 944	3 177	1 983	1 178
1960	325	845	13 597	6 742	8 735	2 378	1 188	953
1961	318	881	12 413	6 141	11 367	3 901	1 894	1 501
1962	55	1 254	12 544	6 299	8 468	2 436	3 151	2 025
1963	160	1 495	17 268	9 382	7 428	2 401	2 061	1 404
1964	331	1 433	20 528	11 497	5 385	1 895	861	718
1965	427	1 376	19 360	11 730	5 040	1 981	571	516
1966	283	1 633	18 115	12 108	10 319	4 357	420	376
1967	381	1 771	16 912	11 987	9 652	3 723	565	470
1968	1 229	2 191	16 821	12 995	13 153	4 745	547	474
1969	972	2 943	20 210	16 939	21 523	7 218	642	564
1970	760	2 876	23 645	21 508	29 661	11 271	1 437	1 175
1971	1 159	2 710	20 257	17 626	24 244	9 396	1 126	895
1972	1 865	3 871	24 435	22 528	42 994	17 645	2 503	1 995
1973	1 661	7 959	33 325	36 614	39 853	26 103	7 630	6 382
1974	2 111	12 539	34 778	43 039	27 189	23 682	5 939	5 772
1975	1 498	12 862	31 083	25 993	33 240	22 107	2 283	3 037
1976	1 464	14 436	35 732	32 693	52 120	34 009	2 451	3 696
1977	2 533	34 905	53 051	53 291	60 373	48 913	1 292	1 968
1978	3 071	35 985	57 827	64 896	42 532	40 885	620	984
1979	3 182	45 915	51 932	90 216	26 250	31 059	382	693
1980	1 748	91 763	41 372	93 547	44 699	51 230	204	460
1981	2 899	100 340	40 672	87 669	44 142	57 515	144	334
1982	3 039	94 825	38 399	73 673	25 367	37 057	225	446
1983	5 476	94 630	41 659	88 972	29 073	43 133	99	344
1984	5 824	92 700	32 492	80 442	26 000	39 114	282	829
1985	3 432	82 430	30 327	77 403	21 329	33 808	150	567
1986	5 339	84 317	28 012	76 709	27 055	41 766	122	373
1987	4 969	105 015	29 928	88 348	31 010	50 305	481	1 542
1988	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1989	3 371	62 256	24 980	74 722	19 844	38 006	36	133
1990	6 094	62 046	31 576	104 210	31 928	57 682	68	136
1991	7 537	43 432	32 038	90 710	45 219	81 803	74	180
1992	4 711	67 636	25 899	83 634	27 946	50 439	48	86
1993	13 841	89 098	28 794	95 435	31 755	67 859	61	239
1994	30 419	128 396	25 197	84 803	25 806	61 903	268	998
1995	66 860	128 019	21 691	67 130	21 049	50 249	89	390
1996	95 807	181 069	19 878	55 039	20 947	53 551	109	470

(a) From 1980 figures relate to foreign exports only.
(b) From 1920, year ended 30 June.
(c) Excludes interstate exports. Details are not available for publication.
(d) Separate details not available. Total exports of fresh meats were 84 tonnes valued at $9,164.

22.10 – EXPORTS OF SELECTED COMMODITIES (a) Continued

Year(b)	Lobster(c)		Wheat (d)		Flour(e)		Potatoes	
	tonnes	$ 000	tonnes	$ 000	tonnes	$'000	tonnes	$'000
1890		—	27	—		—	—	–
1900	—		54 839	813	47	1	113	1
1910	—	—	249 049	5 083	2 559	49	18	
1920	—	—	679 109	12 258	117 254	5 045	1 637	54
1930		—		—	62 659	1 540	5 037	151
1940	—	–	417 214	4 669	83 159	1 301	11 953	214
1950	518	463	585 406	33 384	105 065	8 335	10 090	384
1951	1 436	1 517	830 346	51 688	144 914	11 774	11 181	506
1952	1 311	1 861	730 002	45 728	146 584	13 669	13 514	733
1953	1 329	2 085	634 639	40 347	159 883	15 090	12 860	750
1954	1 461	2 342	185 066	11 272	134 126	11 704	16 026	1 300
1955	1 532	2 490	526 212	27 478	109 172	7 219	9 020	512
1956	1 601	3 022	619 779	28 860	117 409	7 766	2 275	171
1957	1 618	3 514	1 273 578	61 291	115 658	7 474	7 728	736
1958	2 136	3 965	725 131	40 861	101 448	6 907	13 998	832
1959	2 715	5 281	639 647	33 113	94 854	6 337	8 577	368
1960	2 996	6 499	999 164	49 442	79 697	5 100	9 612	436
1961	2 316	5 881	1 428 272	71 280	122 839	7 840	7 821	437
1962	3 607	9 778	2 010 766	104 356	88 889	5 891	10 328	632
1963	3 490	8 910	1 380 372	72 197	67 652	4 645	18 032	810
1964	3 416	9 211	1 497 453	77 881	62 677	4 396	9 925	353
1965	2 672	10 592	1 102 420	56 955	83 826	5 926	12 935	841
1966	3 193	13 821	1 887 996	96 515	49 130	3 378	21 362	1 393
1967	3 643	13 873	2 312 777	126 918	34 804	2 507	17 478	692
1968	3 919	17 989	2 373 195	121 764	41 918	2 944	13 142	622
1969	3 038	17 133	1 521 376	77 987	35 100	2 433	21 944	1 149
1970	2 976	15 695	1 814 787	86 593	31 173	2 257	19 888	831
1971	3 155	19 413	2 670 890	130 564	26 670	1 958	9 390	510
1972	3 425	24 626	2 587 504	128 132	18 882	1 345	8 600	371
1973	3 171	20 919	2 249 934	111 744	9 798	859	(g)4 911	(g)334
1974	2 656	18 511	2 139 973	211 333	11 232	1 380	(g)9 576	(g)1 113
1975	3 328	25 258	3 241 895	409 758	19 281	3 439	8 527	1 217
1976	3 128	27 777	3 215 792	375 897	11 658	2 022	12 196	1 636
1977	4 071	47 061	3 009 101	316 258	11 355	2 051	7 190	1 127
1978	3 902	48 043	3 795 969	351 190	8 291	1 481	5 853	390
1979	4 170	51 064	2 208 985	257 414	7 872	1 660	2 735	373
1980(h)	3 626	50 448	4 205 774	615 944	4 342	1 055	5 292	616
1981	2 858	42 480	2 634 951	422 433	4 952	1 279	3 824	585
1982	4 849	77 930	3 826 760	594 992	1 578	594	5 466	947
1983	5 424	88 175	5 031 977	845 855	1 086	343	7 274	1 278
1984	6 506	111 954	3 637 624	632 247	3 127	833	2 806	756
1985	4 778	126 644	4 543 782	850 090	3 140	876	5 084	946
1986	4 267	114 568	5 342 611	989 144	1 750	550	2 338	511
1987	4 884	143 665	4 872 265	697 557	1 879	528	2 311	570
1988	(f)	(f)	(f)	(f)	(f)	(f)	(f)	(f)
1989	7 750	172 779	4 995 551	1 009 103	1 957	642	740	153
1990	6 835	181 047	4 244 130	946 683	650	276	4 271	1 000
1991	6 854	195 603	5 013 047	708 217	1 388	389	12 112	3 651
1992	9 316	282 124	1 764 475	276 779	994	367	12 364	3 725
1993	12 107	283 443	5 308 934	1 143 428	4 262	1 453	9 600	3 290
1994	11 745	338 132	6 018 653	1 122 434	8 667	2 664	11 779	3 819
1995	10 545	329 045	5 418 634	1 121 487	215	115	9 520	3 317
1996	11 059	292 139	6 538 155	1 825 813	11 809	5 097	9 940	3 684

(a) From 1980 figures relate to foreign exports only.
(b) From 1920, year ended 30 June.
(c) For years 1950 to 1952, foreign exports only. Figures relate to rock lobster tails only until 1982. From 1982 figures include whole rock lobsters and tails.
(d) From 1920, year ended 30 June; from 1978, excludes interstate exports.
(e) From 1973, figures include meal and flour of wheat or meslin; from 1978, figures include meal and flour of all cereal grains.
(f) Details not available.
(g) Some interstate details for 1973 included in 1974.
(h) Figures for flour and potatoes represent foreign exports only.

22.10 – EXPORTS OF SELECTED COMMODITIES (a) Continued

Year(b)	Fresh and dried fruit and nuts(c)	Hides and skins	Timber (d)		Wool (e)	
	tonnes	$'000	'000t	$'000	tonnes	$'000
1890	—	8	19	133	1 970	543
1900	1	49	33	164	3 161	523
1910	11	150	162	916	4 125	541
1920	300	482	342	1 945	11 883	1 934
1930	312	1 246	143	931	27 034	7 875
1940	740	745	143	1 251	28 487	5 558
1950	1 780	2 329	81	1 949	45 766	50 923
1951	2 295	5 294	66	1 783	41 633	112 559
1952	2 853	3 194	68	2 075	46 633	67 680
1953	4 556	3 942	112	4 147	51 489	79 122
1954	3 300	3 295	109	4 480	51 083	82 260
1955	3 845	2 921	99	3 847	49 811	70 563
1956	3 393	3 274	129	5 598	58 982	70 313
1957	4 598	4 650	132	6 215	57 755	87 510
1958	3 725	3 898	158	7 496	52 167	72 686
1959	3 609	3 489	183	8 415	60 280	58 537
1960	2 437	4 767	174	7 760	62 838	77 957
1961	4 636	3 828	157	7 175	71 681	74 842
1962	2 818	4 580	161	7 528	73 584	83 865
1963	4 982	4 339	155	7 241	71 058	82 107
1964	4 016	4 966	149	6 813	82 628	114 239
1965	5 165	4 177	133	6 279	79 106	98 294
1966	4 838	5 447	69	3 687	97 698	115 128
1967	5 704	5 377	139	7 475	106 886	126 995
1968	4 068	4 699	85	4 947	124 708	126 417
1969	6 552	6 013	88	5 068	144 388	157 950
1970	6 054	7 968	96	5 666	132 778	134 796
1971	7 208	5 395	79	4 808	128 388	98 289
1972	5 245	5 356	101	6 440	159 284	120 460
1973	6 135	13 945	113	7 087	146 456	220 719
1974	5 835	13 536	100	7 407	121 113	263 330
1975	7 547	11 195	109	9 252	114 069	167 631
1976	6 047	13 728	94	9 823	153 248	231 301
1977	5 285	24 708	78	10 152	169 674	331 164
1978	5 976	21 147	59	8 885	123 071	251 321
1979	8 703	29 280	66	10 508	150 185	326 466
1980(f)	10 314	34 716	72	12 226	141 262	378 557
1981	9 506	17 467	32	7 050	135 529	398 051
1982	10 783	16 736	25	5 830	127 308	394 367
1983	12 655	18 783	18	4 813	123 953	392 144
1984	10 013	23 998	20	5 251	121 511	406 207
1985	10 220	27 629	22	7 173	140 675	523 304
1986	12 573	13 979	22	7 330	153 987	614 202
1987	13 879	40 292	10	4 199	161 085	731 352
1988	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
1989	8 497	32 009	13	5 497	153 548	1 167 056
1990	10 501	39 078	20	7 556	124 308	779 639
1991	9 639	24 779	13	6 670	102 570	462 849
1992	10 400	21 678	41	10 307	160 120	660 221
1993	9 485	28 480	19	10 096	154 070	605 676
1994	10 774	17 172	20	13 249	176 414	653 592
1995	10 842	24 681	22	15 497	138 746	732 881
1996	11 642	31 962	20	15 521	148 112	693 092

(a) From 1980 figures relate to foreign exports only.
(b) From 1920, year ended 30 June.
(c) Includes tomatoes for 1933 and earlier years (includes nuts).
(d) Excludes fuel wood and wood chips.
(e) Includes greasy and degreased wool.
(f) Figures for fresh fruit, hides and skins represent foriegn exports only.

22.10 – EXPORTS OF SELECTED COMMODITIES (a) Continued

Year (b)	Iron ore and concentrates		Lead and zinc ores (c) (d)	Tin ore and concentrates	Ilmenite concentrate (including leucoxene) (e)		Iron and steel (f)	Gold mint bullion (g)(h)	
	'000t	$'000	$'000	$'000	tonnes	$'000	$'000	grams	$'000
1910	—	—	4	93	—	—	5	10 389	2 835
1920	—	—	102	129	—	—	16	1 275	452
1930	—	—	19	29	—	—	3	4	1
1940	—	—	2	14	—	—	31	36 329	24 056
1950	—	—	272	49	—	—	95	2	2
1960	809	1 601	229	415	90	713	11 198	18 662	18 738
1961	1 035	2 101	83	325	132	1 198	12 781	78 754	79 271
1962	1 069	2 209	45	563	159	1 441	13 826	14 090	12 195
1963	1 495	2 898	33	532	183	1 717	15 107	12 970	13 048
1964	1 381	2 743	18	1 080	263	2 571	15 029	11 975	12 045
1965	1 562	3 040	662	1 229	330	3 194	17 933	15 956	16 127
1966	2 657	6 967	124	1 521	430	4 181	14 458	25 909	26 147
1967	8 530	50 890	177	2 214	443	4 440	15 658	14 930	15 107
1968	14 563	104 506	58	2 330	462	4 645	11 442	11 602	11 816
1969	19 898	151 797	161	1 843	557	5 751	27 002	11 228	12 701
1970	31 542	233 580	41	1 386	573	6 068	34 306	12 037	13 874
1971	46 273	341 702	—	1 511	563	6 631	34 571	14 665	15 760
1972	48 658	347 500	—	2 043	580	7 416	36 415	17 646	21 950
1973	66 036	420 255	6	2 277	595	7 696	36 529	16 314	30 193
1974	79 286	488 239	15	2 732	728	9 774	60 811	10 093	27 393
1975	88 070	699 843	—	3 019	672	9 893	71 493	9 263	36 666
1976	83 090	772 199	—	2 538	647	9 995	60 765	13 659	50 527
1977	84 939	900 987	—	3 939	1 184	20 155	74 508	9 980	36 863
1978	80 128	935 018	—	4 947	986	17 653	50 285	10 344	50 906
1979	84 016	978 315	—	5 074	883	17 475	72 591	n.a.	(i)99 708
1980	76 725	1 025 660	220	5 841	1 119	25 433	83 447	n.a.	(i)56 317
1981	72 756	1 069 087	—	2 469	929	23 726	42 423	1 279	22 024
1982	72 532	1 195 486	11 285	1 057	890	25 003	6 645	5 054	72 060
1983	64 551	1 405 840	14 925	1 234	780	21 986	2 959	9 536	141 340
1984	80 942	1 551 299	18 420	127	1 068	35 176	2 473	21 312	308 580
1985	87 670	1 796 578	17 407	—	1 009	36 473	741	23 036	308 424
1986	80 309	1 861 779	6 040	—	999	45 149	747	28 483	458 728
1987	74 321	1 701 851	—	—	864	55 398	916	23 247	479 790
1988	(j)	(j)	(j)	(j)	(j)	(j)	(j)	(j)	(j)
1989	(k)94 949	(k)1 718 621	31 891	—	825	73 075	944	26 539	414 025
1990	(k)101 017	(k)2 142 511	52 171	—	752	73 146	1 087	19 844	331 658
1991	102 784	n.a.	124 836	22	907	90 823	5 096	95 874	1 519 559
1992	105 716	2 701 384	218 117	—	580	54 897	2 673	166 241	2 465 878
1993	107 189	2 883 594	189 640	—	n.a.	n.a.	4 613	171 524	2 706 741
1994	113 986	2 765 135	112 715	—	n.a.	n.a.	7 900	187 591	3 266 286
1995	128 458	2 760 946	106 551	—	n.a.	n.a.	7 170	178 582	2 930 708
1996	125 652	2 843 477	93 291	—	n.a.	n.a.	15 729	204 961	3 342 228

(a) From 1980, figures relate to foreign exports only.
(b) From 1920, year ended 30 June.
(c) Includes silver-lead and silver-lead-zinc ores and concentrates.
(d) Between 1971 and 1988, the value of foreign exports of lead was nil. From 1973, figures exclude interstate exports of lead ores and concentrates, and from 1978 interstate exports of zinc ores and concentrates.
(e) From 1972, figures exclude foreign exports of beneficiated ilmenite; from 1978, figures also exclude interstate exports of all ilmenite and leucoxene. From April 1987, figures exclude ilmenite ores and concentrates in bags, drums and similar containers.
(f) Principally pig-iron, cast iron and basic shapes and sections of iron and steel.
(g) Gold sold abroad before consignment is not recorded as an export until actually shipped.
(h) Includes additional premiums on sales of industrial gold.
(i) Includes all processed gold, but excludes gold ores and concentrates.
(j) Details not available.
(k) *Source:* Department of Minerals and Energy.

22.11 – INTERNATIONAL AND INTERSTATE TRADE

Year(a)	Imports (b)			Exports (b) (c)			Excess of (d)		Ships' and aircraft stores
	Foreign	Interstate	Total	Foreign	Interstate	Total	Imports	Exports	
	$m	$m	$m	$m	$m	$m	$m	$m	$m
1890	1.0	0.7	1.7	1.0	0.4	1.3	0.4	..	..
1900	6.6	5.4	11.9	11.2	2.3	13.5	..	1.6	0.2
1910	8.8	7.1	15.8	11.7	4.6	16.3	..	0.5	0.3
1920	9.9	14.8	24.7	28.9	2.4	31.3	..	6.6	0.8
1930	17.8	19.8	37.6	32.0	2.2	34.2	3.4	..	1.3
1940	12.6	27.5	40.0	19.3	28.5	47.8	..	7.8	1.4
1950	68.8	70.0	138.9	106.6	12.4	119.0	19.9	..	4.7
1951	80.5	95.8	176.3	197.7	18.8	216.5	..	40.1	7.2
1952	120.5	124.2	244.7	151.6	35.4	187.0	57.7	..	8.4
1953	59.7	137.2	197.0	166.3	49.7	215.9	..	19.0	10.3
1954	85.1	165.4	250.4	136.8	39.2	176.0	74.4	..	7.3
1955	101.3	182.1	283.4	137.0	47.3	184.3	99.1	..	7.9
1956	93.0	178.0	270.9	152.3	68.5	220.8	50.2	..	10.6
1957	80.4	188.7	269.1	216.6	81.5	298.1	..	29.0	12.9
1958	91.8	195.1	286.9	179.5	79.8	259.4	27.5	..	11.6
1959	90.0	202.4	292.4	174.6	68.9	243.5	48.9	..	9.5
1960	92.4	246.7	339.1	231.8	77.3	309.0	30.0	..	9.0
1961	110.5	245.5	356.0	309.3	89.9	399.3	..	43.2	10.3
1962	100.2	245.2	345.4	287.6	84.6	372.2	..	26.9	9.4
1963	112.6	313.7	426.4	246.8	91.6	338.5	87.9	..	7.9
1964	121.7	323.2	444.9	286.1	101.8	387.9	56.9	..	9.7
1965	153.5	343.9	497.4	243.1	120.0	363.0	134.4	..	9.0
1966	175.7	403.1	578.7	314.4	119.6	434.0	144.7	..	10.1
1967	159.4	474.9	634.2	421.3	116.0	537.4	96.9	..	10.9
1968	207.0	527.1	734.0	475.3	124.5	599.8	134.3	..	14.8
1969	203.5	562.3	765.8	546.4	149.9	696.3	69.6	..	14.3
1970	242.3	640.2	882.5	675.0	149.9	824.9	57.6	..	15.1
1971	278.3	726.8	1 005.1	862.4	163.8	1 026.2	..	21.1	20.6
1972	283.3	787.8	1 071.1	946.5	156.3	1 102.8	..	31.8	22.5
1973	227.3	786.2	1 013.5	1 154.4	173.8	1 328.2	..	314.7	17.5
1974	368.9	939.4	1 308.3	1 415.0	222.2	1 637.2	..	328.9	29.2
1975	577.4	1 134.5	1 711.9	1 880.1	253.4	2 133.5	..	421.6	50.2
1976	637.4	1 418.7	2 056.2	2 117.9	290.7	2 408.6	..	352.5	46.6
1977	829.4	1 641.5	2 471.0	2 596.1	305.8	2 901.9	..	431.0	64.1
1978	937.4	1 828.5	2 765.9	2 589.0	355.2	2 944.1	..	178.2	71.0
1979	1 161.2	2 044.4	3 205.6	2 820.1	446.2	3 266.3	..	60.7	72.6
1980	1 449.7	2 337.8	3 787.5	3 854.0	635.4	4 489.4	..	701.9	126.2
1981	1 663.4	2 841.1	4 504.5	3 595.0	813.0	4 408.0	96.4	..	144.3
1982	2 535.1	3 141.1	5 676.2	3 907.6	888.5	4 796.2	880.0	..	134.2
1983	2 523.0	3 160.8	5 683.8	4 797.8	1 155.7	5 953.5	..	269.1	129.5
1984	1 935.6	3 638.9	5 574.4	5 062.1	1 410.1	6 466.3	..	891.8	110.7
1985	2 155.3	4 291.2	6 446.5	6 028.4	1 507.4	7 535.9	..	1 089.4	123.2
1986	2 202.9	4 783.5	6 986.4	6 529.3	1 623.0	8 152.4	..	1 165.9	87.7
1987	2 768.7	5 071.5	7 840.1	6 911.4	1 805.7	8 717.1	..	877.0	84.5
1988	3 217.0	5 404.5	8 621.5	7 491.8	1 808.5	9 300.3	..	678.7	87.2
1989	3 581.8	6 430.7	10 012.5	9 013.1	1 777.1	10 633.7	..	621.3	72.5
1990	3 984.8	6 516.0	10 500.8	10 138.6	2 282.4	12 510.2	..	2 282.4	90.1
1991	3 635.8	5 861.6	9 497.3	12 659.3	1 970.1	14 396.9	..	4 899.6	91.9
1992	3 548.2	6 043.7	9 591.9	14 055.0	2 533.6	16 573.1	..	6 981.2	56.0
1993	4 966.5	6 368.8	11 160.6	14 994.2	2 457.6	18 117.1	..	6 956.6	70.2
1994	4 793.4	n.a.	n.a.	15 611.0	n.a.	n.a.	..	10 817.6	68.5
1995	5 799.4	n.a.	n.a.	16 434.6	n.a.	n.a.	..	10 635.2	88.5
1996	6 289.6	n.a.	n.a.	18 925.9	n.a.	n.a.	..	12 636.2	83.3

(a) From 1920, year ended 30 June.
(b) From 1976, excludes interstate value of horses. Details are not available for publication.
(c) Excludes ships' stores up to and including 1982. Ships' and aircraft stores for foreign owned vessels and aircraft are included in foreign and total exports from 1983 onwards. From 1982, excludes value of re-exports.
(d) From 1994, excess of trade is based on foreign imports and exports only and excludes interstate trade.

22.12 – INDUSTRIAL DISPUTES; WAGE RATES

Year	Industrial disputes (a)				Award rates of pay index numbers (c) Adult male wage and salary earners (d)(e)	
			Working days lost			
	Number of disputes	Workers involved (b)	Number	Average per worker involved	Weekly	Hourly
	No.	'000	000	No.	$	$
1930	2	0.5	27.1	57.85	n.a.	n.a.
1940	4	3.0	7.4	2.44	36.8	33.1
1950	15	2.0	5.7	2.93	71.0	71.7
1960	43	25.7	27.3	1.06	126.8	127.1
1961	22	9.7	23.2	2.40	128.8	129.0
1962	28	8.4	6.3	0.75	129.5	129.7
1963	28	42.6	32.0	0.75	132.8	133.0
1964	26	6.2	7.1	1.16	137.5	137.6
1965	33	12.6	10.0	0.79	143.5	143.5
1966	25	2.9	6.2	2.17	153.6	153.8
1967	26	5.1	6.0	1.18	159.6	159.9
1968	70	18.7	21.8	1.16	169.0	168.7
1969	104	59.1	101.4	1.72	179.5	179.3
1970	125	46.5	141.1	3.03	198.2	198.0
1971	132	35.8	69.4	1.94	219.5	219.4
1972	105	28.3	94.6	3.34	234.2	232.5
1973	160	37.6	117.3	3.12	267.9	266.3
1974	257	188.1	256.9	1.37	357.7	356.5
1975	236	53.8	100.7	1.87	401.2	398.5
1976	250	100.7	252.1	2.50	104.8	104.8
1977	229	54.9	220.5	4.02	116.0	116.0
1978	306	76.1	197.9	2.60	125.3	125.3
1979	252	169.5	348.1	2.06	131.7	131.7
1980	368	69.4	191.0	2.75	145.7	145.8
1981	364	72.9	244.0	3.35	166.1	166.2
1982	436	63.6	158.9	2.50	187.6	190.3
1983	300	42.3	270.6	6.40	197.2	200.9
1984	406	69.2	119.2	1.72	205.9	210.7
1985	361	48.7	92.9	1.91	103.8	103.8
1986	267	50.6	143.1	2.83	106.3	106.5
1987	245	43.1	115.3	2.68	110.0	110.3
1988	221	60.9	160.6	2.64	118.5	119.1
1989	226	54.7	102.1	1.87	124.4	126.7
1990	190	73.2	108.4	1.48	129.1	132.3
1991	156	63.1	119.1	1.89	134.0	134.7
1992	134	28.8	53.6	1.86	137.1	137.6
1993	111	27.6	29.5	1.07	138.5	139.3
1994	82	15.9	27.4	1.72	140.0	141.0
1995	70	99.7	101.6	1.02	142.5	143.5

(a) Excludes disputes involving cessation of work of less than 10 person-days. Details of the number of disputes and workers involved in disputes which commenced in any year and were still in progress during the following year are included in the figures for both years.
(b) Includes workers indirectly involved, i.e. those put out of work at an establishment where a stoppage occurred but not themselves parties to the dispute.
(c) End of December. Prior to 1976 – Base: weighted average wage rate for Australia. June 1985 = 100.
(d) Excludes workers in rural industry.
(e) Prior to June 1985, index related to wage earners only. From June 1985, relates to wage and salary earners.

22.13 – CONSUMER PRICE INDEX: PERTH

(Base of each index: Year 1989-90 = 100.0).

June quarter	Food	Clothing	Housing	Household equipment and operation	Transport-ation	Tobacco and alcohol	Health and personal care	Recreation and education	All groups	All groups Per cent change(a)
1973	21.5	22.2	20.6	23.0	19.6	18.0	15.7	n.a.	20.8	n.a.
1974	24.5	26.0	22.5	24.9	21.7	19.6	18.7	n.a.	23.3	12.0
1975	28.0	31.1	26.8	30.6	26.4	24.1	24.5	n.a.	28.0	20.2
1976	31.0	36.5	32.6	35.2	30.9	29.8	20.2	n.a.	31.8	13.6
1977	35.5	41.2	37.0	38.0	33.2	31.1	42.9	n.a.	36.3	14.2
1978	40.0	44.9	39.9	41.4	36.7	32.8	44.9	n.a.	39.6	9.1
1979	45.1	48.3	41.5	44.0	41.1	39.4	39.4	n.a.	43.0	8.6
1980	49.1	51.5	43.3	48.6	46.2	41.5	49.6	n.a.	47.2	9.8
1981	53.3	55.8	47.2	53.0	51.3	44.5	47.4	n.a.	51.1	8.3
1982	58.1	59.5	51.7	59.2	56.0	48.2	68.8	61.1	56.8	11.2
1983	64.6	63.4	55.4	63.7	61.7	54.5	78.6	66.8	62.4	9.9
1984	67.8	67.4	58.3	68.3	66.5	63.0	59.0	68.1	65.0	4.2
1985	72.3	71.6	61.7	71.6	72.5	67.8	61.6	72.3	69.4	6.8
1986	78.1	79.3	67.2	78.2	74.9	75.2	66.9	77.1	74.8	7.8
1987	82.8	86.5	73.3	85.0	86.7	83.9	79.3	85.3	82.6	10.4
1988	89.2	92.6	76.3	90.9	91.6	89.6	87.5	91.4	88.1	6.7
1989(b)	96.3	98.4	88.9	96.4	95.9	93.6	94.2	95.4	94.7	7.5
1990	102.8	101.6	103.8	102.9	102.1	103.8	103.8	102.3	102.9	8.7
1991	105.2	105.9	100.6	106.1	105.4	109.7	110.9	103.5	105.1	2.1
1992	107.6	108.5	89.7	107.4	109.9	111.9	116.9	105.3	105.6	0.5
1993	109.2	108.9	87.9	107.7	111.6	115.6	122.3	107.2	106.8	1.1
1994	109.9	108.5	87.8	107.9	116.0	131.8	125.5	107.5	109.1	2.2
1995	115.7	107.5	99.0	110.0	121.4	140.2	135.7	112.3	114.9	5.3
1996	117.8	107.0	101.6	112.3	123.9	150.0	141.1	114.8	117.9	2.6

(a) Per cent change is change from the June quarter of previous year.
(b) Series for Housing and All groups have been affected by a change in the treatment of mortgage interest charges from March Quarter 1989.
Source: Consumer Price Index (6401.0).

22.14 – STATE AND LOCAL AUTHORITIES: RECEIPTS AND OUTLAYS

Year ended 30 June	Receipts: Taxes, fees, fines	Receipts: Net operating surpluses public trading enterprises	Receipts: Property and other income	Receipts: Grants from the Commonwealth Government	Receipts: Financing transactions	Receipts: Total funds available	Outlays: Final consumption expenditure	Outlays: Capital expenditure on goods(a)	Outlays: Transfer payments	Outlays: Net advances paid	Outlays: Total outlays
	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
1976	322	66	99	772	53	1 312	728	435	131	18	1 312
1977	371	37	120	844	155	1 528	871	483	157	17	1 528
1978	423	80	168	974	259	1 905	1 005	551	330	19	1 905
1979	466	90	172	1 056	315	2 100	1 113	608	363	16	2 100
1980	519	98	185	1 168	352	2 321	1 267	646	409	—	2 321
1981	590	130	212	1 307	281	2 520	1 425	627	466	2	2 520
1982	690	155	249	1 430	316	2 840	1 609	717	516	-1	2 841
1983	772	194	316	1 619	857	3 757	1 864	1 196	677	20	3 757
1984	924	274	355	1 874	835	4 262	2 096	1 252	850	63	4 262
1985	1 062	301	394	2 067	585	4 410	2 313	1 102	972	22	4 409
1986	1 145	401	510	2 214	644	4 915	2 581	1 147	1 110	76	4 915
1987	1 397	518	529	2 395	679	5 518	2 815	1 328	1 294	81	5 518
1988	1 699	563	600	2 594	432	5 888	3 134	1 222	1 482	50	5 888
1989	1 984	601	793	2 586	805	6 769	3 505	1 414	1 601	60	6 769

(a) Includes gross fixed capital expenditure, increase in stocks and expenditure on land and net intangible assets.
NOTE: This series replaced Table 22.16 'Public Revenue and Expenditure: Consolidated Revenue Fund' and Table 22.17 'Net Expenditure from Loan Funds; Public Debt'.

22.15 – STATE AND LOCAL AUTHORITIES: REVENUE, FINANCING AND OUTLAYS

Year ended 30 June	Revenue: Taxes, fees, fines	Revenue: Other	Revenue: Total	Financing: Increase in provisions	Financing: Net borrowings	Financing: Other	Financing: Total	Outlays: Current	Outlays: Capital	Outlays: Total
	$m	$m	$m	$m	$m	$m	$m	$m	$m	$m
1990	2 080	4 391	6 471	303	384	148	835	5 500	1 807	7 306
1991	2 207	4 489	6 696	341	1 006	-367	980	5 961	1 714	7 675
1992	2 334	4 676	7 010	262	1 343	-899	706	6 127	1 589	7 716
1993	2 438	4 858	7 296	252	757	343	666	6 287	1 675	7 962
1994	2 819	4 991	7 810	286	-59	-140	87	6 417	1 480	7 897
1995	3 025	5 114	8 138	387	-51	493	-158	6 640	1 340	7 981

NOTE: This series replaced Table 22.14 'State and Local Authorities: Receipts and Outlays'.

22.16 – PUBLIC REVENUE AND EXPENDITURE: CONSOLIDATED REVENUE FUND

	Revenue						Expenditure					
									Departmental			
Year (a)	Common-wealth funds	Public utili-ties	Depart-mental (b)	Taxa-tion	Terri-torial (c)	Total revenue	Public utili-ties	Interest and sinking fund	Educa-tion	Health	Other	Total expen-diture
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
1850	n.a.	n.a.	n.a.	n.a.	4	38	n.a.	n.a.	n.a.	n.a.	n.a.	33
1860	n.a.	n.a.	n.a.	n.a.	35	140	n.a.	n.a.	3	n.a.	n.a.	123
1870	n.a.	n.a.	n.a.	n.a.	40	196	n.a.	n.a.	7	n.a.	n.a.	226
1880	n.a.	n.a.	n.a.	n.a.	72	360	n.a.	40	19	n.a.	n.a.	409
1890	n.a.	n.a.	n.a.	n.a.	217	829	n.a.	144	23	n.a.	n.a.	803
1900	n.a.	2 612	182	244	380	5 751	1 863	880	138	198	2 049	5 231
1910	1 407	3 916	551	673	649	7 315	2 440	2 006	367	328	1 533	6 895
1920	1 197	6 364	1 188	1 688	818	11 727	5 156	4 124	829	642	1 931	13 063
1930	1 547	10 596	3 134	2 906	950	19 501	8 073	6 891	1 385	649	2 872	20 537
1931	1 547	9 228	3 279	2 269	678	17 374	6 654	7 243	1 346	486	3 950	20 215
1932	1 547	8 818	2 766	2 014	585	16 071	5 724	7 015	1 098	328	4 543	19 186
1933	1 947	8 873	2 701	2 257	558	16 664	5 682	7 009	1 108	333	3 761	18 392
1934	2 147	8 867	2 240	2 737	626	16 963	5 870	7 095	1 153	309	3 560	18 541
1935	2 413	9 837	1 562	3 804	812	18 663	6 391	7 100	1 225	326	3 342	18 997
1936	2 617	10 366	1 677	4 372	767	20 067	6 756	7 135	1 331	341	3 595	19 891
1937	2 013	10 633	1 727	4 807	773	20 371	7 247	7 237	1 432	381	4 024	21 113
1938	2 097	11 148	1 980	5 190	749	21 638	7 249	7 579	1 474	280	4 158	21 659
1939	2 087	11 159	1 786	5 728	634	21 899	7 857	7 779	1 514	401	3 992	22 340
1940	2 137	11 102	1 942	5 992	632	22 240	7 662	8 021	1 545	416	4 070	22 534
1941	2 247	11 366	1 916	6 255	638	22 864	7 534	8 114	1 568	421	4 262	22 842
1942	2 207	12 133	2 204	6 222	620	23 880	8 282	8 204	1 662	436	4 293	23 877
1943	7 852	13 518	2 497	1 330	634	26 303	9 377	8 183	1 627	458	5 564	26 254
1944	7 935	13 626	2 868	1 553	700	27 178	9 870	8 185	1 747	506	5 780	27 102
1945	8 044	13 618	3 402	1 715	697	27 908	10 064	8 251	1 778	485	6 261	27 899
1946	9 960	13 303	2 519	1 936	709	28 815	10 825	8 168	2 005	1 010	5 621	28 815
1947	11 461	11 769	3 105	2 138	1 053	29 962	10 866	8 012	2 447	1 369	5 910	30 057
1948	14 515	13 242	3 575	2 354	1 202	35 421	13 996	8 089	3 298	1 841	7 280	36 125
1949	17 136	15 032	4 564	2 683	1 106	41 121	16 720	8 215	3 519	2 613	9 942	42 756
1950	22 975	17 792	5 733	3 240	1 225	51 622	20 237	8 508	4 160	3 633	13 096	51 574
1951	25 343	19 085	5 911	3 912	1 230	56 312	21 974	8 994	5 269	4 465	13 180	55 994
1952	29 923	24 335	6 863	4 633	1 300	67 910	27 490	9 741	7 262	6 269	15 696	69 094
1953	39 056	22 385	8 557	5 247	1 513	77 768	32 044	10 611	8 686	6 926	17 639	78 784
1954	38 342	29 860	8 378	6 468	1 929	86 292	35 234	12 147	9 503	7 675	18 797	86 497
1955	38 759	32 645	9 433	7 258	2 014	91 440	36 089	13 857	11 217	8 026	19 838	92 408
1956	43 373	33 969	9 779	8 036	2 498	99 225	39 184	15 451	12 482	9 344	21 501	102 886
1957	46 759	37 133	12 548	9 027	2 433	108 662	42 022	17 043	13 636	10 067	33 645	112 487
1958	51 808	34 525	13 640	10 729	2 516	114 108	40 103	19 303	15 172	11 026	25 572	116 355
1959	55 496	36 080	14 522	10 368	2 783	120 136	40 317	20 844	15 819	11 967	29 244	123 506
1960	58 871	38 575	15 696	11 834	2 878	128 776	42 418	23 053	17 282	13 565	29 861	131 587
1961	65 519	40 830	16 372	12 079	2 797	138 665	41 072	24 628	19 541	15 018	35 160	141 075
1962	73 430	42 456	16 549	12 926	3 283	149 852	42 097	27 250	21 417	14 935	40 131	151 780
1963	75 847	43 559	18 134	14 762	3 501	157 182	42 267	29 980	22 850	16 073	41 254	158 687
1964	78 988	45 376	20 948	17 604	3 751	167 888	44 247	31 771	25 880	18 705	43 430	170 681
1965	88 565	39 778	26 712	19 512	4 107	180 143	43 360	34 669	29 133	21 160	49 401	184 840
1966	103 459	45 683	28 753	22 574	4 598	206 655	47 106	37 926	34 016	23 086	56 869	206 665
1967	106 748	52 787	31 461	27 536	7 655	228 146	53 182	41 662	36 746	26 429	61 512	228 174
1968	112 617	56 226	33 135	34 916	11 845	250 738	60 728	43 864	41 224	29 294	65 362	249 909
1969	126 621	54 407	33 035	41 602	17 301	275 081	64 016	47 083	46 441	33 613	74 822	276 135
1970	141 326	62 921	36 905	50 865	23 633	318 189	71 166	51 427	55 839	41 343	87 660	318 901
1971	170 396	68 350	45 583	48 434	32 187	367 252	79 717	54 178	66 341	52 575	107 129	371 620
1972	180 132	73 446	54 131	78 490	34 992	423 999	82 410	62 029	82 472	59 862	125 260	424 890
1973	200 633	69 158	66 711	97 141	37 162	473 840	88 372	65 280	94 547	71 866	144 005	477 330
1974	232 111	85 291	76 306	126 929	43 346	567 683	104 178	69 200	115 982	100 841	168 122	573 414
1975	313 846	108 921	96 930	160 307	49 010	734 240	121 494	75 300	165 705	148 161	213 042	743 373

(a) From 1900, year ended 30 June.
(b) Reimbursements, fees, etc.
(c) Revenue from sales, leases, licences and royalties relating to land, mining and timber.
NOTE: This table was replaced by Table 22.14 'State and Local Authorities: Receipts and Outlays'.

22.17 – NET EXPENDITURE FROM LOAN FUNDS; PUBLIC DEBT

	Net expenditure from loan funds on public works and services (b)							Public debt (at end of year)	
Year (a)	Railways, tramways and buses	Electricity supply	Harbours, rivers, light-houses, etc.	Water supplies sewerage, drainage and irrigation	Public buildings	Other	Total	Gross amount out-standing	Sinking fund
	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000	$'000
1860		—	—	...				4	—
1870		—	—	—	—	—	—		
1880		(c)549	(d)38	...	...	n.a.	(d)802	722	n.a.
1890		3	6	2	(e)76	n.a.	32	2 735	170
1900		302	395	949	—	110	1 757	23 349	754
1910		908	174	199	152	626	2 058	46 575	5 139
1920		242	204	94	21	4 765	5 327	93 644	13 656
1930		1 819	529	610	108	4 226	7 291	142 389	2 081
1940		200	104	1 615	732	974	3 624	192 461	608
1941	214		18	152	1 649	306	480	2 819	195 583	1 147
1942	110		25	111	605	70	437	1 359	194 718	535
1943	157		92	133	100	55	217	754	193 976	347
1944	49		31	-143	75	166	34	212	192 957	140
1945	140		11	61	150	241	492	1 094	191 790	254
1946	142		208	75	473	451	276	1 625	193 852	1 008
1947	535		332	173	1 453	772	-- 821	4 987	198 005	1 091
1948	676		1 471	316	1 388	1 097	125	5 074	200 549	309
1949	913		2 131	449	1 626	1 099	942	7 161	207 377	126
1950	4 496		4 691	804	2 002	1 357	2 859	16 209	219 100	142
1951	3 723		6 591	1 164	4 091	2 003	3 081	20 653	246 374	17
1952	15 198		6 684	2 694	4 803	2 729	3 409	35 517	276 577	647
1953	13 533		179	2 422	4 858	5 432	8 787	35 213	306 144	1 861
1954	11 295		1 406	2 328	3 939	3 144	6 276	28 388	331 565	822
1955	9 752		1 410	1 920	5 661	3 993	6 726	29 462	355 763	-442
1956	6 139		2 049	1 638	5 516	4 187	7 098	26 629	377 465	245
1957	5 519		4 200	950	7 119	5 599	9 169	32 556	410 290	112
1958	4 209		2 480	1 398	7 694	5 891	6 599	28 272	436 857	147
1959	5 711		2 200	1 428	8 395	7 410	7 199	32 342	464 237	173
1960	4 953		1 553	1 373	9 547	8 723	6 355	32 504	493 575	171
1961	4 221		400	1 966	10 314	10 479	8 037	35 418	523 070	94
1962	5 432		300	2 587	10 952	12 032	6 449	37 751	555 130	222
1963	6 204		500	2 438	10 770	13 420	5 563	38 894	587 336	485
1964	7 496		—	3 028	10 537	15 630	6 409	43 100	626 045	442
1965	6 800		794	2 822	10 957	19 948	5 457	46 779	665 620	473
1966	7 628		1 434	2 583	12 667	19 908	3 580	47 800	705 514	267
1967	9 068		2 427	1 746	13 642	18 230	5 902	51 015	748 601	216
1968	7 750		4 542	2 402	14 552	18 816	5 115	53 177	792 969	408
1969	10 547		5 679	1 190	12 560	20 116	4 765	54 859	840 343	3 015
1970	6 331		4 566	2 055	13 330	24 627	8 594	59 504	886 778	182
1971	7 194		27	2 202	15 176	25 549	13 492	63 640	924 111	582
1972	5 919		3 666	1 902	18 369	23 994	32 606	86 456	975 958	1 216
1973	4 179		4 104	2 371	23 598	32 872	21 882	89 006	1 030 060	265
1974	5 569		3 467	2 505	26 708	34 324	3 291	75 863	1 074 111	4 899
1975	6 185		4 069	3 728	24 487	45 262	6 140	89 871	1 120 313	1 037

(a) From 1900, year ended 30 June. Sinking fund at 31 March from 1900 to 1928.
(b) From 1928 includes expenditure from Loan Suspense Account.
(c) Total amount for the years 1877 to 1881.
(d) Total amount for the years 1872 to 1881.
(e) Includes expenditure prior to 1890.
NOTE: This table was replaced by Table 22.14 `State and Local Authorities: Receipts and Outlays.

22.18 – WESTERN AUSTRALIA IN RELATION TO AUSTRALIA

	Unit	Date or period	Western Australia	Australia	%
Area	sq km	..	2 525 500	7 682 300	32.9
Proportion of area having rainfall —					
Under 250 mm	per cent	..	58	39	..
250 mm and under 500 mm	per cent	..	29.2	31.8	..
500 mm and over	per cent	..	12.8	29.2	..
Population (a)	number	30 June 1995	1 731 160	18 053 989	9.6
Population increase	number	1994–1995	30 096	210 615	12.8
Rate of population increase	per cent	1993–1994	1.77	1.18	..
Births registered (b)	number	1995	25 139	256 190	9.8
Deaths registered (b)	number	1995	p10 364	125 133	8.3
Marriages registered	number	1995	10 404	109 386	9.5
Divorce - Dissolutions granted	number	1995	5 040	49 666	10.1
Employed labour force (c)	'000	May 1996	835.4	8 324.8	10.0
Average weekly earnings (trend)—					
full-time adult females, total earnings	dollars	May 1996	810.5	773.1	..
full-time adult males, total earnings	dollars	May 1996	583.6	605	..
full-time adult persons, total earnings	dollars	May 1996	729.0	713.7	..
Unemployed on benefit	number	30 June 1995	66 678	812 387	8.2
Industrial disputes – Working days lost	000	1995	101.6	547.6	18.6
Area under crop	'000 hectares	1994–95	6 181	17 030	36.3
Area of —					
Wheat for grain	'000 hectares	1994–95	3 848	7 891	48.8
Oats for grain	000 hectares	1994–95	256	897	28.5
Barley for grain	'000 hectares	1994–95	579	2 470	23.4
Pastures cut for Hay	'000 hectares	1994–95	113	915	12.3
Fruit and vineyards	'000 hectares	1994–95	10	201	5.0
Livestock —					
Sheep	'000	31 March 1995	30 218	123 210	24.5
Cattle	'000	31 March 1995	1 899	25 736	7.4
Pigs	'000	31 March 1995	316	2 653	11.9
Production -					
Wheat for grain	'000 tonnes	1994–95	5 438	8 972	60.6
Wool (d)	'000 tonnes	1994–95	173	679	25.5
Meat (e)	'000 tonnes	1994–95	243	3 225	7.5
Whole milk (f)	mil. litres	1994–95	343	8 206	4.2
Value of agricultural commodities produced	$m	1994–95	3 861	23 750	16.2
Mining establishments – Value added	$m	1993–94	(g)6 996	r18 907	r37.0
Iron ore production	000 tonnes	1993–94	119 690	123 631	96.8
Coal production	'000 tonnes	1993–94	(h)r5 151	177 874	2.9
Crude oil production (i)	megalitres	1993–94	r7 639	29 583	25.8
Manufacturing establishments (j) –					
Number	number	1992–93	3 436	38 285	8.9
Employment - At 30 June	'000	1992–93	62.1	881.7	7.0
Wages and salaries paid	$m	1992–93	1 830.7	27 283	6.7
Turnover	$m	1992–93	13 298.6	160 375.9	8.3
New dwelling units commenced	number	1995–96	15 347	124 531	12.3
Value of all building commenced	$m	1995–96	2 488.6	25 856.5	9.6
Foreign imports	$m f.o.b.	1995–96	6 289.5	77 792	8.1
Foreign exports	$m f.o.b.	1995–96	18 924.3	76 043	24.9
Motor vehicles on register	'000	30 June 1995	1 178.8	10 935.4	10.8
New motor vehicles registered	000	1995–96	66.7	658.9	10.1
Road traffic accidents –					
Persons killed	number	1993	209	1 952	10.7
Retail turnover (excluding motor vehicles, etc.)(k)	$m	1993–94	10 312.3	101 073.6	10.2

(a) Based on estimated resident population.
(b) Based on State of usual residence.
(c) In civilian employment and seasonally adjusted. Excludes defence forces and employees in agriculture and private domestic service, and trainee teachers.
(d) In terms of greasy wool. Comprises shorn wool, dead wool, fellmongered wool and wool exported on skins.
(e) Comprises sheep, cattle, pig and poultry meat. Excluding Tasmanian poultry production. Dressed carcass weight. Excludes offal.
(f) Source: Australian Dairy Corporation.
(g) Excludes establishments predominantly engaged in quarrying sand and gravel.
(h) Source: Department of Minerals and Energy.
(i) Source: Department of Primary Industries and Energy.
(j) Excludes details for manufacturing establishments employing fewer than four persons. Excludes electricity and gas establishments.
(k) At current prices.

Appendix

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APPENDIX

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In cases where an article has been published in more than one previous issue, the reference to its last appearance only is given.

Article	*Year Book*
Aboriginal companions	1995, pp. 8-9
Aboriginal population, history of	1984, pp. 1-8
Abuse in families campaign	1995, p. 79
Agriculture, Institute of, University of Western Australia	1976, pp. 217-8
Air pollution and the weather	1975, pp. 63-5
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ANZAAS Congress: Perth, 1973	1973, pp. 562-4
Argyle Diamonds	1996, pp. 195-6
Assessment of Tourism Outlook 1996	1996, p. 235
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Australian Fine China	1996, p. 221
Australian Security Commissions Regulatory Initiatives Protect Investors	1993, p. 338
Australian Stock Exchange (Perth) Ltd.	1989, pp. 257-9
Austral Ships	1996, p.220
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Bicycles in Western Australia	1993, p. 308
Breast cancer screening	1995, pp. 121 2
Bunnings turn to CES	1996, p. 131
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Captain Fremantle's Report of Arrival of First Settlers, text of	1976, pp. 541-2
Captain Stirling's 'Narrative of Operations', text of	1974, pp. 533-41
Census of Wholesale Establishments, 1968–69	1976, pp. 434-7
Censuses of population and housing, 1911 to 1966	1972, pp. 547-70
Census of population and housing, 1991	1992, pp. 6-7
Centenary Galleries	1996, p. 142
Centenary of the discovery of the Collie coalfields	1983, pp. 393-7
Century of Lacrosse	1996, pp. 150-1
Child Health Survey	1996, pp. 96-7
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Community Welfare, Department for, history of	1981, pp. 135-9
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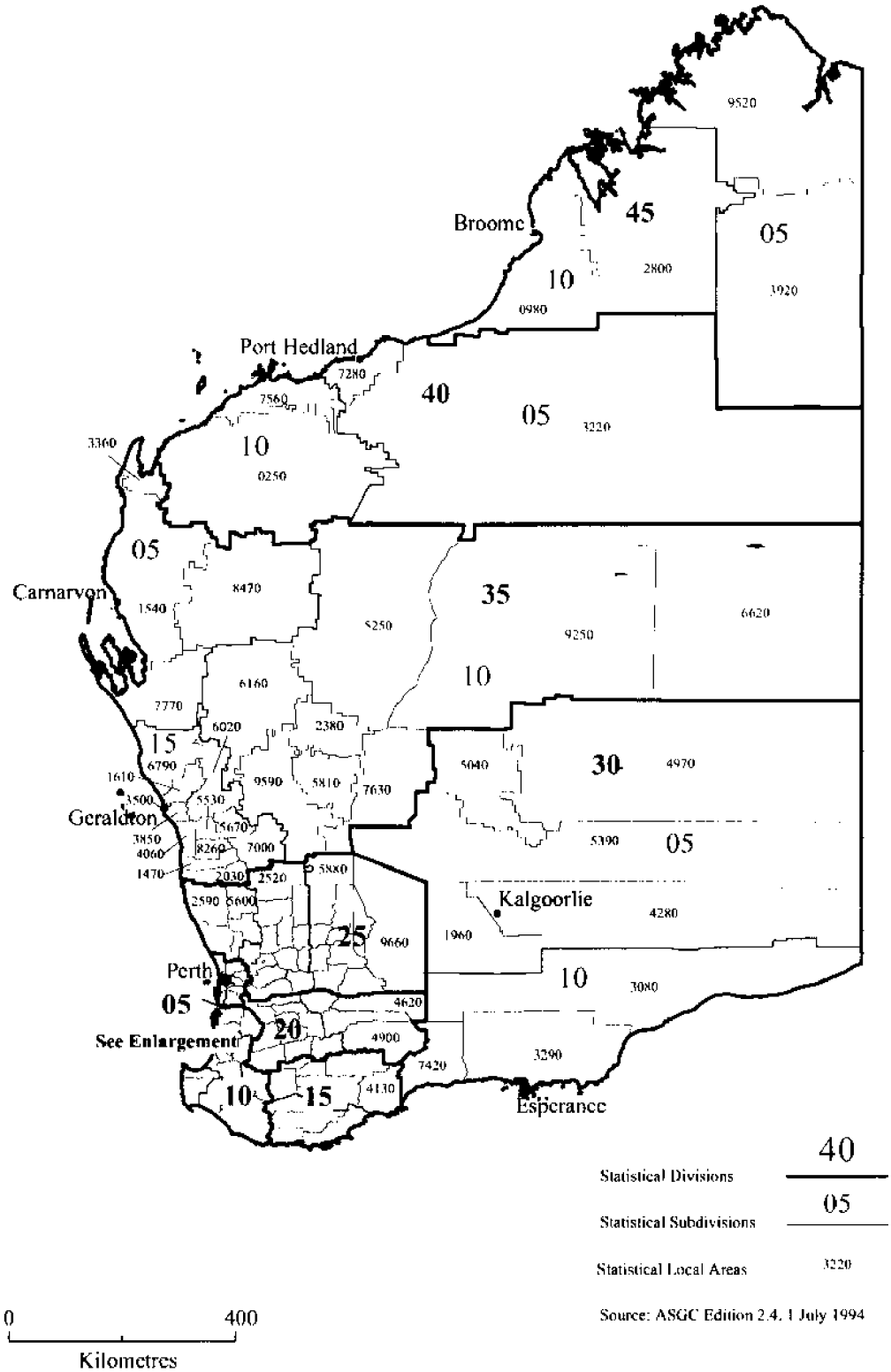
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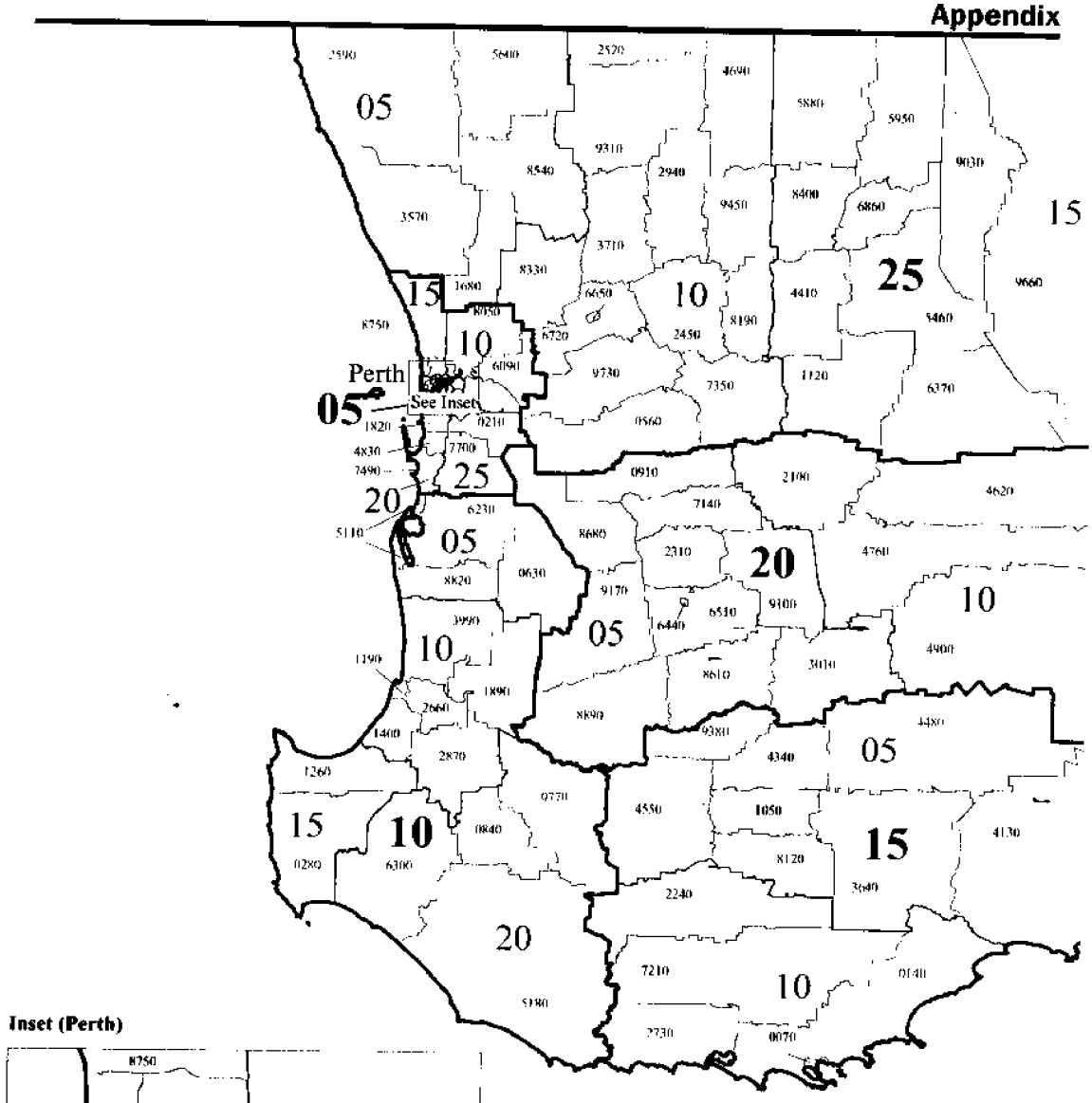
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STATISTICAL DIVISIONS, SUBDIVISIONS AND STATISTICAL LOCAL AREAS AT 30 JUNE 1996

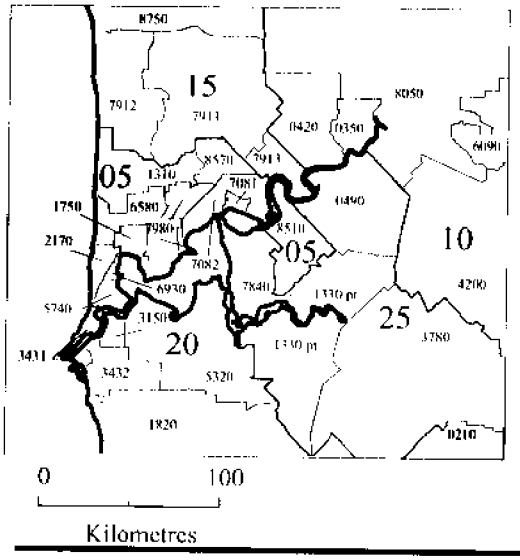
Name	CODE
PERTH	**05**
CENTRAL METROPOLITAN	0505
Cambridge (T)	1310
Claremont (T)	1750
Cottesloe (T)	2170
Mosman Park (T)	5740
Nedlands (C)	6580
Peppermint Grove (S)	6930
Perth (C)-Inner	7081
Perth (C)-Remainder	7082
Subiaco (C)	7980
Victoria Park (T)	8510
Vincent (T)	8570
EAST METROPOLITAN	0510
Bassendean (T)	0350
Bayswater (C)	0420
Kalamunda (S)	4200
Mundaring (S)	6090
Swan (S)	8050
NORTH METROPOLITAN	0515
Stirling (C)-Central	7911
Stirling (C)-West	7912
Stirling (C)-South-Eastern	7913
Wanneroo (C)	8750
SOUTH WEST METROPOLITAN	0520
Cockburn (C)	1820
East Fremantle (T)	3150
Fremantle (C)-Inner	3431
Fremantle (C)-Remainder	3432
Kwinana (T)	4830
Melville (C)	5320
Rockingham (C)	7490
SOUTH EAST METROPOLITAN	0525
Armadale (C)	0210
Belmont (C)	0490
Canning (C)	1330
Gosnells (C)	3780
Serpentine-Jarrahdale (S)	7700
South Perth (C)	7840
SOUTH WEST	**10**
DALE	1005
Boddington (S)	0630
Mandurah (C)	5110
Murray (S)	6230
Waroona (S)	8820
PRESTON	1010
Bunbury (C)	1190
Capel (S)	1400
Collie (S)	1890
Dardanup (S)	2660
Donnybrook-Balingup (S)	2870
Harvey (S)	3990
VASSE	1015
Augusta-Margaret River (S)	0280
Busselton (S)	1260
BLACKWOOD	1020
Boyup Brook (S)	0770
Bridgetown-Greenbushes (S)	0840
Manjimup (S)	5180
Nannup (S)	6300
LOWER GREAT SOUTHERN	15
PALLINUP	1505
Broomehill (S)	1050
Gnowangerup (S)	3640
Jerramungup (S)	4130
Katanning (S)	4340
Kent (S)	4480
Kojonup (S)	4550
Tambellup (S)	8120
Woodanilling (S)	9380
KING	1510
Albany (T)	0070
Albany (S)	0140
Cranbrook (S)	2240
Denmark (S)	2730
Plantagenet (S)	7210
UPPER GREAT SOUTHERN	**20**
HOTHAM	2005
Brookton (S)	0910
Cuballing (S)	2310
Dumbleyung (S)	3010
Narrogin (T)	6440
Narrogin (S)	6510
Pingelly (S)	7140
Wagin (S)	8610
Wandering (S)	8680
West Arthur (S)	8890
Wickepin (S)	9100
Williams (S)	9170
LAKES	2010
Corrigin (S)	2100
Kondinin (S)	4620
Kulin (S)	4760
Lake Grace (S)	4900
MIDLANDS	**25**
MOORE	2505
Chittering (S)	1680
Dandaragan (S)	2590
Gingin (S)	3570
Moora (S)	5600
Victoria Plains (S)	8540
AVON	2510
Beverley (S)	0560
Cunderdin (S)	2450
Dalwallinu (S)	2520
Dowerin (S)	2940
Goomalling (S)	3710
Koorda (S)	4690
Northam (T)	6650
Northam (S)	6720
Quairading (S)	7350
Tammin (S)	8190
Toodyay (S)	8330
Wongan-Ballidu (S)	9310
Wyalkatchem (S)	9450
York (S)	9730
CAMPION	2515
Bruce Rock (S)	1120
Kellerberrin (S)	4410
Merredin (S)	5460
Mount Marshall (S)	5880
Mukinbudin (S)	5950
Narembeen (S)	6370
Nungarin (S)	6860
Trayning (S)	8400
Westonia (S)	9030
Yilgarn (S)	9660
SOUTH EASTERN	**30**
LEFROY	3005
Coolgardie (S)	1960
Kalgoorlie/Boulder (C)	4280
Laverton (S)	4970
Leonora (S)	5040
Menzies (S)	5390
JOHNSTON	3010
Dundas (S)	3080
Esperance (S)	3290
Ravensthorpe (S)	7420
CENTRAL	**35**
GASCOYNE	3505
Carnarvon (S)	1540
Exmouth (S)	3360
Shark Bay (S)	7770
Upper Gascoyne (S)	8470
CARNEGIE	3510
Cue (S)	2380
Meekatharra (S)	5250
Mount Magnet (S)	5810
Murchison (S)	6160
Ngaanyatjarraku (S)	6620
Sandstone (S)	7630
Wiluna (S)	9250
Yalgoo (S)	9590
GREENOUGH RIVER	3515
Carnamah (S)	1470
Chapman Valley (S)	1610
Coorow (S)	2030
Geraldton (C)	3500
Greenough (S)	3850
Irwin (S)	4060
Mingenew (S)	5530
Morawa (S)	5670
Mullewa (S)	6020
Northampton (S)	6790
Perenjori (S)	7000
Three Springs (S)	8260
PILBARA	**40**
DE GREY	4005
East Pilbara (S)	3220
Port Hedland (T)	7280
FORTESCUE	4010
Ashburton (S)	0250
Roebourne (S)	7560
KIMBERLEY	**45**
ORD	4505
Halls Creek (S)	3920
Wyndham-East Kimberley (S)	9520
FITZROY	4510
Broome (S)	0980
Derby-West Kimberley (S)	2800

Statistical Divisions are indicated thus: SOUTH WEST; Subdivisions thus: BLACKWOOD; Statistical Local Areas thus: Manjimup (S). Cities are marked (C), Towns (T) and Shires (S).


Broome
Port Hedland
Carnarvon
Geraldton
Perth
See Enlargement
Kalgoorlie
Esperance
45
05
10
40
35
30
15
20
25
9520
2800
3920
0980
7280
7560
3220
0250
3360
8470
1540
5250
9250
6620
6160
7770
6020
2380
6790
1610
3500
5530
9590
5810
7630
5040
4970
5390
3850
4060
1470
8260
7000
5670
5880
2030
2520
2590
6600
9660
1960
4280
3080
4620
4900
7420
3290
4130
0
400
Kilometres
Statistical Divisions
Statistical Subdivisions
Statistical Local Areas
Source: ASGC Edition 2.4, 1 July 1994


Perth
See Inset
05
10
15
20
25
0
100
Kilometres
Statistical Division
Statistical Subdivision
Statistical Local Areas
Source: ASGC Edition 2.4, 1 July 1994

Inset (Perth)


0
100
Kilometres

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Library & Information Service
of Western Australia
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PERTH WA 6000
Tel: (09) 427 3111

Curtin University of Technology
TL Robertson Library
Kent Street
BENTLEY WA 6102
Tel: (09) 351 7167

Edith Cowan University
Bunbury Campus Library
Robertson Drive
BUNBURY WA 6230
Tel: (097) 807 740

Edith Cowan University
Churchlands Campus Library
Pearson Street
CHURCHLANDS WA 6018
Tel: (09) 273 8217

Edith Cowan University
Joondalup Campus Library
Joondalup Drive
JOONDALUP WA 6027
Tel: (09) 405 5525

Edith Cowan University
Mt Lawley Campus Library
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MT LAWLEY WA 6050
Tel: (09) 370 6251

Murdoch University Library
South Street
MURDOCH WA 6150
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Tel: (09) 222 7222

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South West Regional College of Tafe
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BUNBURY WA 6231
Tel: (097) 214 455

Rockingham College of Tafe
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ROCKINGHAM WA 6168
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University of Notre Dame
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ALBANY WA 6330
Tel: (098) 412 333

Armadale Public Library
& Information Service
Orchard Avenue
ARMADALE WA 6112
Tel: (09) 399 3424

Bassendean Memorial Public Library
46 Old Perth Road
BASSENDEAN WA 6054
Tel: (09) 279 2966

Broome Public Library & Information Service
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BROOME WA 6725
Tel: (091) 921 635

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& Information Service
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Tel: (097) 214 766 or 215 585

Busselton Public Library
Stanley Street
BUSSELTON WA 6280
Tel: (097) 541 588

Carnarvon District Public Library
Stuart Street
CARNARVON WA 6701
Tel: (099) 411 680

Collie Public Library
Wittenoom Street
COLLIE WA 6225
Tel: (097) 341 334

Dianella Public Library
Dianella Plaza Shopping Centre
Waverley Street
DIANELLA WA 6062
Tel: (09) 275 4022

Esperance Public Library
Windich Street
ESPERANCE WA 6450
Tel: (090) 711 666

Floreat Park Library
Floreat Forum Shopping Centre
Howtree Place
FLOREAT PARK WA 6014
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Fremantle City Library
Cnr Newman and William Streets
FREMANTLE WA 6160
Tel: (09) 430 2266

Geraldton Regional Library
Cathedral Avenue
GERALDTON WA 6530
Tel: (099) 212 165

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2240 Albany Highway
GOSNELLS WA 6110
Tel: (09) 398 1210

Kalamunda Public Library
7 Williams Road
KALAMUNDA WA 6076
Tel: (09) 293 2199

Kalgoorlie Public Library
Robert Street
KALGOORLIE WA 6430
Tel: (090) 214 744

Karratha Community Library
Millstream Road
KARRATHA WA 6714
Tel: (091) 596 852

Karrinyup Public Library
Davenport Street
KARRINYUP WA 6018
Tel: (09) 446 8944

Leederville Public Library
Cnr Loftus and Vincent Streets
LEEDERVILLE WA 6007
Tel: (09) 444 5502

Mandurah Public Library
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MANDURAH WA 6210
Tel: (09) 535 4424

Manjimup Public Library
Cnr Rose and Mount Streets
MANJIMUP WA 6258
Tel: (097) 712 895

Melville City Library
& Information Service
Almondbury Road
ARDROSS WA 6153
Tel: (09) 316 4959

Merredin Regional
Library Service
Queen Street
MERREDIN WA 6415
Tel: (090) 411 611

Midland Public Library
Tuohy Gardens,
The Crescent
MIDLAND WA 6056
Tel: (09) 274 3463

Morley Public Library
7 Dewar Street
MORLEY WA 6062
Tel: (09) 375 1766

Mundaring Library
& Information Service
Nicholl Street
MUNDARING WA 6073
Tel: (09) 294 1421

Narrogin Library
& Information Service
Fortune Street
NARROGIN WA 6312
Tel: (098) 811 944

Nedlands Public Library
60-64 Stirling Highway
NEDLANDS WA 6009
Tel: (09) 386 6230

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298 Fitzgerald Street
NORTHAM WA 6401
Tel: (096) 221 830

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575 Hay Street, Lower Floor
PERTH WA 6000
Tel: (09) 265 3373

Riverton Public Library
High Road
RIVERTON WA 6155
Tel: (09) 451 0640

Rockingham Public Library
Simpson Avenue
ROCKINGHAM WA 6168
Tel: (09) 528 0369

South Hedland Public Library
& Information Service
Leake Street
SOUTH HEDLAND WA 6722
Tel: (091) 401 985

Spearwood Public Library
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SPEARWOOD WA 6163
Tel: (09) 411 3491

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SUBIACO WA 6008
Tel: (09) 381 5088

Thornlie Public Library
Cnr Commerara Drive
and Curloss Avenue
THORNLIE WA 6108
Tel: (09) 459 2499

Subiaco Public Library
Cnr Rokeby and Bagot Roads
SUBIACO WA 6008
Tel: (09) 381 5088

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